МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ РОССИЙСКОЙ ФЕДЕРАЦИИ ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ АВТОНОМНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ

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**Лабораторная работа №2 по курсу**

**«Макростатический анализ и прогнозирование»**

|  |  |
| --- | --- |
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1. Постановка задачи

1. Выбор предмета исследования. В данной лабораторной работе предметом исследования является состояние субъектов РФ, которое характеризуется следующими показателями:

|  |  |
| --- | --- |
|  | Число дорожно-транспортных происшествий и пострадавших в них на 100 000 человек населения |
|  | Смертность населения старше трудоспособного возраста, на 100 000 человек населения соответствующего возраста |
|  | Продажа сильно алкогольной продукции населению(тысяч декалитров)/**на тыс населения** |
|  | Средняя Стоимость минимального (условного) набора потребительских товаров и услуг |
|  | Число спортивных сооружений/ **на тыс населения** |
|  | Доходы консолидированных бюджетов субъектов Российской Федерации / **на тыс населения** |
|  | Предварительно расследовано преступлений, совершенных в состоянии алкогольного опьянения/ **на тыс населения** |
|  | Среднедушевые доходы населения (в месяц), руб. |
|  | Численность студентов, обучающихся по программам бакалавриата, специалитета, магистратуры на 10 000 человек населения, всего |

1. На основе предварительного экспертного анализа было выделено семь групп субъектов РФ. К первой группе отнесено 2 субъекта, ко второй – 2, к третьей – 2, к четвертой – 8, к пятой – 2, к шестой – 9, к седьмой – 5
2. На основе семи обучающих выборок из многомерных нормально распределенных генеральных совокупностей с равными ковариационными матрицами необходимо провести классификацию оставшихся 55 субъектов РФ;
3. Дать экономическую интерпретацию результатов классификации

2. Выполнение работы

Фрагмент таблицы с исходным и данными для анализа в пакете Statistica представлен на рис. 1. В первых девяти столбцах введены наблюденные значения признаков, характеризующих демографическое состояние субъектов РФ, в десятом столбце – значения признака, указывающего на принадлежность к классу. Так для субъектов, относящихся по условию к первой обучающей выборке, в десятом столбце введена цифра 1, для субъектов, относящихся ко второй обучающей выборке – цифра 2 и т.д. Для субъектов, подлежащих классификации, значение признака «Обучающая выборка» не указывается.

3. Преддискриминантный этап анализа

В рис. 2 представлена оценка общей ковариационной матрицы, в рис. 3 оценка общей корреляционной матрицы.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | Pooled Within-Groups Correlations (Данные) | | | | | | | | |
| |  | | --- | | X1 | | |  | | --- | | X2 | | |  | | --- | | X3 | | |  | | --- | | X4 | | |  | | --- | | X5 | | |  | | --- | | X6 | | |  | | --- | | X7 | | |  | | --- | | X8 | | |  | | --- | | X9 | |
| |  | | --- | | X1 | | 1,00 | -0,09 | 0,29 | -0,43 | 0,26 | -0,09 | 0,04 | -0,10 | -0,35 |
| |  | | --- | | X2 | | -0,09 | 1,00 | -0,12 | 0,47 | -0,39 | -0,26 | -0,05 | 0,07 | 0,14 |
| |  | | --- | | X3 | | 0,29 | -0,12 | 1,00 | 0,24 | 0,11 | 0,01 | 0,05 | 0,00 | -0,09 |
| |  | | --- | | X4 | | -0,43 | 0,47 | 0,24 | 1,00 | -0,46 | -0,16 | -0,12 | 0,23 | 0,14 |
| |  | | --- | | X5 | | 0,26 | -0,39 | 0,11 | -0,46 | 1,00 | 0,13 | -0,08 | -0,02 | -0,00 |
| |  | | --- | | X6 | | -0,09 | -0,26 | 0,01 | -0,16 | 0,13 | 1,00 | -0,15 | 0,38 | -0,01 |
| |  | | --- | | X7 | | 0,04 | -0,05 | 0,05 | -0,12 | -0,08 | -0,15 | 1,00 | -0,27 | -0,09 |
| |  | | --- | | X8 | | -0,10 | 0,07 | 0,00 | 0,23 | -0,02 | 0,38 | -0,27 | 1,00 | 0,02 |
| |  | | --- | | X9 | | -0,35 | 0,14 | -0,09 | 0,14 | -0,00 | -0,01 | -0,09 | 0,02 | 1,00 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | Pooled Within-Groups Covariances (Данные) | | | | | | | | |
| |  | | --- | | X1 | | |  | | --- | | X2 | | |  | | --- | | X3 | | |  | | --- | | X4 | | |  | | --- | | X5 | | |  | | --- | | X6 | | |  | | --- | | X7 | | |  | | --- | | X8 | | |  | | --- | | X9 | |
| |  | | --- | | X1 | | 0,28 | -0,02 | 0,06 | -0,10 | 0,08 | -0,01 | 0,01 | -0,02 | -0,08 |
| |  | | --- | | X2 | | -0,02 | 0,30 | -0,03 | 0,11 | -0,13 | -0,02 | -0,01 | 0,02 | 0,03 |
| |  | | --- | | X3 | | 0,06 | -0,03 | 0,16 | 0,04 | 0,03 | 0,00 | 0,01 | 0,00 | -0,01 |
| |  | | --- | | X4 | | -0,10 | 0,11 | 0,04 | 0,18 | -0,12 | -0,01 | -0,02 | 0,04 | 0,02 |
| |  | | --- | | X5 | | 0,08 | -0,13 | 0,03 | -0,12 | 0,36 | 0,01 | -0,02 | -0,00 | -0,00 |
| |  | | --- | | X6 | | -0,01 | -0,02 | 0,00 | -0,01 | 0,01 | 0,02 | -0,01 | 0,03 | -0,00 |
| |  | | --- | | X7 | | 0,01 | -0,01 | 0,01 | -0,02 | -0,02 | -0,01 | 0,20 | -0,05 | -0,02 |
| |  | | --- | | X8 | | -0,02 | 0,02 | 0,00 | 0,04 | -0,00 | 0,03 | -0,05 | 0,19 | 0,00 |
| |  | | --- | | X9 | | -0,08 | 0,03 | -0,01 | 0,02 | -0,00 | -0,00 | -0,02 | 0,00 | 0,19 |

Далее рассчитываются оценки математических ожиданий и средних квадратических отклонений признаков в классах.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| обучающая выборка | Means (Данные) | | | | | | | | | |
| |  | | --- | | X1 | | |  | | --- | | X2 | | |  | | --- | | X3 | | |  | | --- | | X4 | | |  | | --- | | X5 | | |  | | --- | | X6 | | |  | | --- | | X7 | | |  | | --- | | X8 | | |  | | --- | | X9 | | |  | | --- | | Valid N | |
| |  | | --- | | G\_1:1 | | -1,86787 | 1,19604 | 1,59258 | 0,180584 | 1,098622 | 4,880008 | 2,02834 | 3,480449 | -2,08495 | 2 |
| |  | | --- | | G\_2:2 | | -0,99405 | -1,60339 | -0,32298 | 0,505788 | -0,910721 | 0,431809 | -1,46563 | 2,264760 | 3,41558 | 2 |
| |  | | --- | | G\_3:3 | | -2,05738 | -2,43969 | -2,09520 | 0,538308 | -0,621986 | -0,440626 | -1,57388 | -0,616997 | -0,28410 | 2 |
| |  | | --- | | G\_4:4 | | 0,48601 | 0,43757 | 0,65025 | 0,229364 | -0,310993 | -0,333422 | 0,35855 | -0,321376 | -0,13830 | 8 |
| |  | | --- | | G\_5:5 | | 1,16945 | 0,77182 | 1,74768 | -0,827548 | 0,258850 | 2,078608 | 0,63142 | 2,117905 | -0,63867 | 2 |
| |  | | --- | | G\_6:6 | | -0,02625 | -0,03948 | -0,42122 | -0,014539 | -0,447260 | -0,403080 | -0,27411 | -0,305220 | 0,31100 | 9 |
| |  | | --- | | G\_7:7 | | 0,18017 | 1,06846 | -0,15978 | -0,677954 | 1,255968 | -0,291145 | 0,36446 | -0,485558 | -0,12361 | 5 |
| |  | | --- | | All Grps | | -0,09823 | 0,14457 | 0,08188 | -0,029715 | -0,019464 | 0,204959 | 0,04881 | 0,224882 | 0,06301 | 30 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| обучающая выборка | Standard Deviations (Данные) | | | | | | | | | |
| |  | | --- | | X1 | | |  | | --- | | X2 | | |  | | --- | | X3 | | |  | | --- | | X4 | | |  | | --- | | X5 | | |  | | --- | | X6 | | |  | | --- | | X7 | | |  | | --- | | X8 | | |  | | --- | | X9 | | |  | | --- | | Valid N | |
| |  | | --- | | G\_1:1 | | 0,317628 | 1,258118 | 0,031104 | 0,827834 | 2,168658 | 0,109909 | 0,421815 | 0,582623 | 0,131958 | 2 |
| |  | | --- | | G\_2:2 | | 0,387110 | 0,502915 | 0,313181 | 0,459908 | 0,835055 | 0,424368 | 0,010548 | 1,344175 | 0,296906 | 2 |
| |  | | --- | | G\_3:3 | | 1,171254 | 0,682012 | 0,200210 | 0,045991 | 0,595381 | 0,145988 | 0,242429 | 0,020237 | 0,369482 | 2 |
| |  | | --- | | G\_4:4 | | 0,714072 | 0,645290 | 0,483265 | 0,389857 | 0,333462 | 0,137654 | 0,371564 | 0,273456 | 0,412097 | 8 |
| |  | | --- | | G\_5:5 | | 0,126555 | 0,343224 | 0,338648 | 0,505898 | 0,572869 | 0,029846 | 0,077620 | 0,872810 | 0,277112 | 2 |
| |  | | --- | | G\_6:6 | | 0,237281 | 0,323505 | 0,365440 | 0,268170 | 0,242611 | 0,085194 | 0,484155 | 0,329254 | 0,536864 | 9 |
| |  | | --- | | G\_7:7 | | 0,463329 | 0,393547 | 0,403146 | 0,564020 | 0,488734 | 0,189426 | 0,627362 | 0,213869 | 0,356372 | 5 |
| |  | | --- | | All Grps | | 0,990309 | 1,090957 | 0,994519 | 0,565901 | 0,904363 | 1,427503 | 0,932780 | 1,313409 | 1,149301 | 30 |

По указанным данным можно дать экономическую интерпретацию:

Так по показателю X1 лидируют представители группы 5, самые плохие показатели имеет группа 3

По показателю X2 лидирует первая группа, худшая группа по показателю – третья

По показателю X3 лидирует группа 5, хуже всех кластер номер 3

По показателю X4 лидирует кластер №3 и отстает группа 5

По показателю X5 в лидерах первый кластер, худшие показатели имеет 5

По показателю X6 лучший показатель имеет первая группа, а худший третья

По показателю X7 лучшая группа – 2-я, худшая - первая

По показателю X8 лучшая группа – 1-я, худшая – три

По показателю X9 лучшая группа – 2-я, худшая - 1

Далее представлены оценки ковариационной и корреляционной матриц по объединенной выборке:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | Covariances (Total) (Данные) | | | | | | | | |
| |  | | --- | | X1 | | |  | | --- | | X2 | | |  | | --- | | X3 | | |  | | --- | | X4 | | |  | | --- | | X5 | | |  | | --- | | X6 | | |  | | --- | | X7 | | |  | | --- | | X8 | | |  | | --- | | X9 | |
| |  | | --- | | X1 | | 0,98 | 0,45 | 0,40 | -0,27 | 0,10 | -0,46 | 0,19 | -0,40 | -0,06 |
| |  | | --- | | X2 | | 0,45 | 1,19 | 0,63 | -0,18 | 0,41 | 0,40 | 0,73 | 0,11 | -0,56 |
| |  | | --- | | X3 | | 0,40 | 0,63 | 0,99 | -0,07 | 0,25 | 0,82 | 0,65 | 0,65 | -0,42 |
| |  | | --- | | X4 | | -0,27 | -0,18 | -0,07 | 0,32 | -0,31 | -0,05 | -0,16 | 0,06 | 0,14 |
| |  | | --- | | X5 | | 0,10 | 0,41 | 0,25 | -0,31 | 0,82 | 0,43 | 0,39 | 0,15 | -0,43 |
| |  | | --- | | X6 | | -0,46 | 0,40 | 0,82 | -0,05 | 0,43 | 2,04 | 0,74 | 1,63 | -0,72 |
| |  | | --- | | X7 | | 0,19 | 0,73 | 0,65 | -0,16 | 0,39 | 0,74 | 0,87 | 0,33 | -0,70 |
| |  | | --- | | X8 | | -0,40 | 0,11 | 0,65 | 0,06 | 0,15 | 1,63 | 0,33 | 1,73 | -0,07 |
| |  | | --- | | X9 | | -0,06 | -0,56 | -0,42 | 0,14 | -0,43 | -0,72 | -0,70 | -0,07 | 1,32 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | Correlations (Total) (Данные) | | | | | | | | |
| |  | | --- | | X1 | | |  | | --- | | X2 | | |  | | --- | | X3 | | |  | | --- | | X4 | | |  | | --- | | X5 | | |  | | --- | | X6 | | |  | | --- | | X7 | | |  | | --- | | X8 | | |  | | --- | | X9 | |
| |  | | --- | | X1 | | 1,00 | 0,42 | 0,40 | -0,48 | 0,11 | -0,33 | 0,20 | -0,31 | -0,05 |
| |  | | --- | | X2 | | 0,42 | 1,00 | 0,58 | -0,30 | 0,42 | 0,26 | 0,71 | 0,08 | -0,45 |
| |  | | --- | | X3 | | 0,40 | 0,58 | 1,00 | -0,13 | 0,28 | 0,58 | 0,70 | 0,50 | -0,37 |
| |  | | --- | | X4 | | -0,48 | -0,30 | -0,13 | 1,00 | -0,61 | -0,06 | -0,30 | 0,08 | 0,22 |
| |  | | --- | | X5 | | 0,11 | 0,42 | 0,28 | -0,61 | 1,00 | 0,34 | 0,47 | 0,13 | -0,41 |
| |  | | --- | | X6 | | -0,33 | 0,26 | 0,58 | -0,06 | 0,34 | 1,00 | 0,56 | 0,87 | -0,44 |
| |  | | --- | | X7 | | 0,20 | 0,71 | 0,70 | -0,30 | 0,47 | 0,56 | 1,00 | 0,27 | -0,65 |
| |  | | --- | | X8 | | -0,31 | 0,08 | 0,50 | 0,08 | 0,13 | 0,87 | 0,27 | 1,00 | -0,04 |
| |  | | --- | | X9 | | -0,05 | -0,45 | -0,37 | 0,22 | -0,41 | -0,44 | -0,65 | -0,04 | 1,00 |

В информационной части формы представлены наблюденное значение статистики Уилкса, приближенное значение F-критерия и значимость нулевой гипотезы об отсутствии различий в групповых средних значениях всех признаков. Результаты проверки такой гипотезы по каждому отдельному признаку

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| N=30 | Discriminant Function Analysis Summary (Данные) No. of vars in model: 9; Grouping: обучающая выборка (7 grps) Wilks' Lambda: ,00001 approx. F (54,81)=14,667 p<0,0000 | | | | | |
| |  | | --- | | Wilks' Lambda | | |  | | --- | | Partial Lambda | | |  | | --- | | F-remove (6,15) | | |  | | --- | | p-value | | |  | | --- | | Toler. | | |  | | --- | | 1-Toler. (R-Sqr.) | |
| |  | | --- | | X1 | | 0,000007 | 0,804918 | 0,60591 | 0,721996 | 0,478263 | 0,521737 |
| |  | | --- | | X2 | | 0,000018 | 0,302366 | 5,76813 | 0,002763 | 0,599189 | 0,400812 |
| |  | | --- | | X3 | | 0,000010 | 0,555666 | 1,99911 | 0,129557 | 0,578196 | 0,421804 |
| |  | | --- | | X4 | | 0,000009 | 0,575947 | 1,84068 | 0,158139 | 0,336338 | 0,663662 |
| |  | | --- | | X5 | | 0,000010 | 0,570818 | 1,87968 | 0,150532 | 0,679236 | 0,320764 |
| |  | | --- | | X6 | | 0,000037 | 0,146992 | 14,50778 | 0,000017 | 0,713275 | 0,286725 |
| |  | | --- | | X7 | | 0,000007 | 0,780411 | 0,70344 | 0,651639 | 0,874418 | 0,125582 |
| |  | | --- | | X8 | | 0,000007 | 0,761213 | 0,78423 | 0,595452 | 0,724971 | 0,275029 |
| |  | | --- | | X9 | | 0,000017 | 0,315708 | 5,41872 | 0,003699 | 0,828482 | 0,171518 |

Значение статистики Уилкса принадлежит интервалу от 0 до 1. Значение близкое к нулю (0,00001) свидетельствует о хорошей дискриминации.

Гипотеза принимается только для признаков X2;X6;X9

Далее исследуется различие между классами с использованием расстояния Махаланобиса. Квадрат расстояния Махаланосиба между классами, наблюденное значение F-статистики и значимость нулевой гипотезы о равенстве нулю расстояния между классами

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| обучающая выборка | Squared Mahalanobis Distances (Данные) | | | | | | |
| |  | | --- | | G\_1:1 | | |  | | --- | | G\_2:2 | | |  | | --- | | G\_3:3 | | |  | | --- | | G\_4:4 | | |  | | --- | | G\_5:5 | | |  | | --- | | G\_6:6 | | |  | | --- | | G\_7:7 | |
| |  | | --- | | G\_1:1 | | 0,000 | 1540,412 | 1841,082 | 1426,243 | 493,7996 | 1550,608 | 1383,837 |
| |  | | --- | | G\_2:2 | | 1540,412 | 0,000 | 200,368 | 161,037 | 404,3555 | 123,771 | 226,760 |
| |  | | --- | | G\_3:3 | | 1841,082 | 200,368 | 0,000 | 152,640 | 642,9962 | 90,754 | 194,158 |
| |  | | --- | | G\_4:4 | | 1426,243 | 161,037 | 152,640 | 0,000 | 298,8371 | 12,890 | 23,296 |
| |  | | --- | | G\_5:5 | | 493,800 | 404,356 | 642,996 | 298,837 | 0,0000 | 367,977 | 298,846 |
| |  | | --- | | G\_6:6 | | 1550,608 | 123,771 | 90,754 | 12,890 | 367,9767 | 0,000 | 35,809 |
| |  | | --- | | G\_7:7 | | 1383,837 | 226,760 | 194,158 | 23,296 | 298,8460 | 35,809 | 0,000 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| обучающая выборка | F-values; df = 9,15 (Данные) | | | | | | |
| |  | | --- | | G\_1:1 | | |  | | --- | | G\_2:2 | | |  | | --- | | G\_3:3 | | |  | | --- | | G\_4:4 | | |  | | --- | | G\_5:5 | | |  | | --- | | G\_6:6 | | |  | | --- | | G\_7:7 | |
| |  | | --- | | G\_1:1 | |  | 111,6241 | 133,4117 | 165,3615 | 35,78258 | 183,8666 | 143,2543 |
| |  | | --- | | G\_2:2 | | 111,6241 |  | 14,5194 | 18,6710 | 29,30112 | 14,6764 | 23,4741 |
| |  | | --- | | G\_3:3 | | 133,4117 | 14,5194 |  | 17,6974 | 46,59392 | 10,7613 | 20,0992 |
| |  | | --- | | G\_4:4 | | 165,3615 | 18,6710 | 17,6974 |  | 34,64777 | 3,9559 | 5,1941 |
| |  | | --- | | G\_5:5 | | 35,7826 | 29,3011 | 46,5939 | 34,6478 |  | 43,6336 | 30,9364 |
| |  | | --- | | G\_6:6 | | 183,8666 | 14,6764 | 10,7613 | 3,9559 | 43,63360 |  | 8,3406 |
| |  | | --- | | G\_7:7 | | 143,2543 | 23,4741 | 20,0992 | 5,1941 | 30,93644 | 8,3406 |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| обучающая выборка | p-values (Данные) | | | | | | |
| |  | | --- | | G\_1:1 | | |  | | --- | | G\_2:2 | | |  | | --- | | G\_3:3 | | |  | | --- | | G\_4:4 | | |  | | --- | | G\_5:5 | | |  | | --- | | G\_6:6 | | |  | | --- | | G\_7:7 | |
| |  | | --- | | G\_1:1 | |  | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | G\_2:2 | | 0,000000 |  | 0,000007 | 0,000001 | 0,000000 | 0,000006 | 0,000000 |
| |  | | --- | | G\_3:3 | | 0,000000 | 0,000007 |  | 0,000002 | 0,000000 | 0,000045 | 0,000001 |
| |  | | --- | | G\_4:4 | | 0,000000 | 0,000001 | 0,000002 |  | 0,000000 | 0,009338 | 0,002598 |
| |  | | --- | | G\_5:5 | | 0,000000 | 0,000000 | 0,000000 | 0,000000 |  | 0,000000 | 0,000000 |
| |  | | --- | | G\_6:6 | | 0,000000 | 0,000006 | 0,000045 | 0,009338 | 0,000000 |  | 0,000204 |
| |  | | --- | | G\_7:7 | | 0,000000 | 0,000000 | 0,000001 | 0,002598 | 0,000000 | 0,000204 |  |

4. Дискриминантный анализ

Рассчитаем коэффициенты линейных дискриминантных функций Фишера. Результаты представлены в таблице 1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | Classification Functions; grouping: обучающая выборка (Данные) | | | | | | |
| |  | | --- | | G\_1:1 p=,06667 | | |  | | --- | | G\_2:2 p=,06667 | | |  | | --- | | G\_3:3 p=,06667 | | |  | | --- | | G\_4:4 p=,26667 | | |  | | --- | | G\_5:5 p=,06667 | | |  | | --- | | G\_6:6 p=,30000 | | |  | | --- | | G\_7:7 p=,16667 | |
| |  | | --- | | X1 | | -5,874 | 8,4039 | -0,0298 | -0,2863 | 0,425 | 0,7192 | -5,7257 |
| |  | | --- | | X2 | | 26,661 | -13,7274 | -18,2406 | 1,3963 | 15,061 | -2,6854 | 8,7402 |
| |  | | --- | | X3 | | 9,772 | -6,0540 | -20,1528 | 5,2503 | 15,723 | -2,5105 | 4,3756 |
| |  | | --- | | X4 | | 7,752 | 6,7960 | 16,6136 | -2,3535 | -11,545 | -0,6977 | -10,5818 |
| |  | | --- | | X5 | | 8,463 | -6,8547 | -1,0442 | -0,9356 | -1,773 | -1,8535 | 4,6777 |
| |  | | --- | | X6 | | 248,352 | 2,8665 | -25,9646 | -14,0009 | 97,888 | -20,2454 | -13,4652 |
| |  | | --- | | X7 | | 20,704 | -3,2130 | -8,6858 | 0,6991 | 6,649 | -2,3167 | 0,8615 |
| |  | | --- | | X8 | | -13,431 | 10,5454 | -3,9182 | 0,6938 | 0,954 | 0,8676 | 0,4379 |
| |  | | --- | | X9 | | -15,497 | 22,2637 | -2,9322 | -0,3680 | -2,199 | 2,0242 | -2,8831 |
| |  | | --- | | Constant | | -657,026 | -68,2904 | -65,0787 | -5,5137 | -132,602 | -6,7760 | -14,3092 |

В первой строке таблицы приведены оценки априорных вероятностей, рассчитанные по первому варианту:

Линейные дискриминантные функции Фишера имеют вид:

*;*

;

;

;

;

На основе рассчитанных классификационных функций проводится повторная классификация объектов обучающих выборок.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Group | Classification Matrix (Данные) Rows: Observed classifications Columns: Predicted classifications | | | | | | | |
| |  | | --- | | Percent Correct | | |  | | --- | | G\_1:1 p=,06667 | | |  | | --- | | G\_2:2 p=,06667 | | |  | | --- | | G\_3:3 p=,06667 | | |  | | --- | | G\_4:4 p=,26667 | | |  | | --- | | G\_5:5 p=,06667 | | |  | | --- | | G\_6:6 p=,30000 | | |  | | --- | | G\_7:7 p=,16667 | |
| |  | | --- | | G\_1:1 | | 100,0000 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| |  | | --- | | G\_2:2 | | 100,0000 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| |  | | --- | | G\_3:3 | | 100,0000 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| |  | | --- | | G\_4:4 | | 100,0000 | 0 | 0 | 0 | 8 | 0 | 0 | 0 |
| |  | | --- | | G\_5:5 | | 100,0000 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| |  | | --- | | G\_6:6 | | 88,8889 | 0 | 0 | 0 | 1 | 0 | 8 | 0 |
| |  | | --- | | G\_7:7 | | 100,0000 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| |  | | --- | | Total | | 96,6667 | 2 | 2 | 2 | 9 | 2 | 8 | 5 |

Как видно из таблицы, изменения в первоначальном составе классов произошли: К первому классу относится 2 объекта, ко второму – 2, К третьему 2, к четвертому 9, к пятому 2, к шестому 8, при этом объект из 6 класса переместился в четвертый (точность на класс 88,89%), К седьмому – 5 объектов

Далее производится Классификация всех объектов (Приложение А)

В первой графе таблицы указаны номера объектов; во второй графе – номера обучающих выборок (прочерками отмечаются объекты, не вошедшие в обучающие выборки); в третьем-десятом столбцах – результаты классификации с помощью дискриминантных функций (1) – (8).

Далее рассчитываются квадраты расстояния Махаланобиса (Приложение А) от объектов до центров каждого из классов. Объект следует отнести к тому классу, расстояние до которого наименьшее.

Также рассчитываются апостериорные вероятности классификации. (Приложение А) Объект следует отнести к тому классу, апостериорная вероятность для которого наибольшая.

|  |  |  |
| --- | --- | --- |
| Класс | Количество субъектов | Наименование субъектов |
| 1 | 2 | Ненецкий Автономный Оуруг,Чукотский Автономный округ; |
| 2 | 3 | Санкт-Петербург,Москва, Томская Область |
| 3 | 4 | Кабардино-балкарская Республика, Республика Дагестан, Республика Ингушетия, Чеченская Республика |
| 4 | 24 | Владимирская Область, Вологодская Область, Еврейская Автономная Область, Ивановская Область, Иркутская Область, Кировская Область, Костромская Область, Ленинградская Область, Московская Область, Мурманская Область, Пермский Край, Приморский Край, Псковская Область, Республика Алтай, Республика Бурятия, Республика Коми, Республика Марий-Эл, Республика Саха, Республика Хакассия, Сахалинская Область, Свердловская Область, Удмуртская Республика, Хабаровский Край, Ярославская Область |
| 5 | 5 | Забайкальский Край, Камчатский Край, Магаданская Область, Республика Тыва, Ямало-ненецкий Автономный Округ |
| 6 | 35 | Алтайский Край, Астраханская Область, Белгородская Область, Брянская Область, Волгоградская Область, Воронежская Область, Калининградская Область, Калужская Область, Карачаево-Черкесская Республика, краснодарский Край, Красноярский Край, Курская Область, Липецкая Область, Нижегородская Область, Новосибирская Область, Омская Область, Оренбургская Область, Орловская Область, Республика Адыгея, Республика Калмыкия, Республика Крым, Республика Мордовия, Республика Северная Осетия-Алания, Республика Татарстан, Ростовская Область, Рязанская Область, Самарская Область, Саратовская Область, Севастополь, Ставропольский Край, Тамбовская Область, Тульская Область, Тюменская Область, Ульяновская Область, Челябинская Область, |
| 7 | 12 | Амурская Область, Архангельская Область, Кемеровская Область, Курганская Область, Новгородская Область, Пензенская Область, Республика Башкортостан, Республика Карелия, Смоленская Область, Тверская Область, Чувашская Республика, Ханты-Мансийский Автономный Округ |

Точность:96,67%

Выборка была составлена по методу полной связи, совпадение классификации с исходной составило .

1. Пошаговый анализ. Включение

Аналогично проведем пошаговый дискриминантный анализ с пошаговым включением

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| N=30 | Discriminant Function Analysis Summary (Данные.sta) Step 6, N of vars in model: 6; Grouping: обучающая выборка (7 grps) Wilks' Lambda: ,00001 approx. F (36,81)=27,042 p<0,0000 | | | | | |
| |  | | --- | | Wilks' Lambda | | |  | | --- | | Partial Lambda | | |  | | --- | | F-remove (6,18) | | |  | | --- | | p-value | | |  | | --- | | Toler. | | |  | | --- | | 1-Toler. (R-Sqr.) | |
| |  | | --- | | X6 | | 0,000816 | 0,016267 | 181,4259 | 0,000000 | 0,931334 | 0,068666 |
| |  | | --- | | X9 | | 0,000082 | 0,162668 | 15,4425 | 0,000003 | 0,949579 | 0,050421 |
| |  | | --- | | X3 | | 0,000059 | 0,226597 | 10,2393 | 0,000055 | 0,818038 | 0,181962 |
| |  | | --- | | X2 | | 0,000052 | 0,255789 | 8,7284 | 0,000153 | 0,670503 | 0,329497 |
| |  | | --- | | X4 | | 0,000032 | 0,420042 | 4,1421 | 0,008692 | 0,572753 | 0,427247 |
| |  | | --- | | X5 | | 0,000026 | 0,506956 | 2,9177 | 0,036220 | 0,707421 | 0,292579 |

Рассчитаем коэффициенты линейных дискриминантных функций Фишера:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | Classification Functions; grouping: обучающая выборка (Данные.sta) | | | | | | |
| |  | | --- | | G\_1:1 p=,06667 | | |  | | --- | | G\_2:2 p=,06667 | | |  | | --- | | G\_3:3 p=,06667 | | |  | | --- | | G\_4:4 p=,26667 | | |  | | --- | | G\_5:5 p=,06667 | | |  | | --- | | G\_6:6 p=,30000 | | |  | | --- | | G\_7:7 p=,16667 | |
| |  | | --- | | X6 | | 224,268 | 13,5822 | -26,5074 | -13,3557 | 95,589 | -18,3642 | -10,6921 |
| |  | | --- | | X9 | | -14,055 | 19,2715 | -2,3620 | -0,3337 | -2,690 | 1,8666 | -1,0681 |
| |  | | --- | | X3 | | 10,673 | -2,4685 | -21,0493 | 5,1035 | 16,877 | -2,5051 | 0,9179 |
| |  | | --- | | X2 | | 23,827 | -10,7013 | -18,2498 | 1,3326 | 15,082 | -2,3823 | 7,0899 |
| |  | | --- | | X4 | | 1,864 | 4,7106 | 17,5870 | -2,0555 | -13,377 | -0,3249 | -5,9712 |
| |  | | --- | | X5 | | 3,797 | -5,0553 | -0,0645 | -0,9911 | -2,696 | -1,3874 | 4,3584 |
| |  | | --- | | Constant | | -589,576 | -51,0233 | -57,9504 | -5,4406 | -128,667 | -6,0826 | -11,8897 |

На основе рассчитанных классификационных функций проводится повторная классификация объектов обучающих выборок.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Group | Classification Matrix (Данные.sta) Rows: Observed classifications Columns: Predicted classifications | | | | | | | |
| |  | | --- | | Percent Correct | | |  | | --- | | G\_1:1 p=,06667 | | |  | | --- | | G\_2:2 p=,06667 | | |  | | --- | | G\_3:3 p=,06667 | | |  | | --- | | G\_4:4 p=,26667 | | |  | | --- | | G\_5:5 p=,06667 | | |  | | --- | | G\_6:6 p=,30000 | | |  | | --- | | G\_7:7 p=,16667 | |
| |  | | --- | | G\_1:1 | | 100,0000 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| |  | | --- | | G\_2:2 | | 100,0000 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| |  | | --- | | G\_3:3 | | 100,0000 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| |  | | --- | | G\_4:4 | | 87,5000 | 0 | 0 | 0 | 7 | 0 | 1 | 0 |
| |  | | --- | | G\_5:5 | | 100,0000 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| |  | | --- | | G\_6:6 | | 88,8889 | 0 | 0 | 0 | 1 | 0 | 8 | 0 |
| |  | | --- | | G\_7:7 | | 100,0000 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| |  | | --- | | Total | | 93,3333 | 2 | 2 | 2 | 8 | 2 | 9 | 5 |

Как видно из таблицы, изменения в первоначальном составе классов произошли: К первому классу относится 2 объекта, ко второму – 2, К третьему 2, к четвертому 8, к пятому 2, к шестому 9, при этом объект из 6 класса переместился в четвертый, и из четвертого в шестой (точность на класс 87,5% и 88,89% соответственно), К седьмому – 5 объектов

Общая точность 93,33%

На основании таблиц, представленных в приложении Б, субъекты можно классифицировать следующим образом:

|  |  |  |
| --- | --- | --- |
| Класс | Количество субъектов | Наименование субъектов |
| 1 | 2 | Ненецкий Автономный Округ, Чукотский Автономный округ; |
| 2 | 3 | Санкт-Петербург, Москва, Томская Область |
| 3 | 4 | Кабардино-балкарская Республика, Республика Дагестан, Республика Ингушетия, Чеченская Республика |
| 4 | 26 | Архангельская Область, Владимирская Область, Вологодская Область, Еврейская Автономная область, Ивановская область, Калужская область, Кировская Область, Костромская Область, Ленинградская Область, Московская Область, Мурманская Область, Пермский край, приморский край, Псковская Область, Республика Алтай, Республика Бурятия, Республика Карелия, Республика Коми, Республика Марий-Эл, Сахалинская Область, Тульская Область, Удмуртская Республика. Хабаровский Край, Чувашская Республика, Ханты-мансийский Автономный Округ, Ярославская Область |
| 5 | 5 | Забайкальский Край, Камчатский Край, Магаданская Область, Республика Тыва, Ямало-ненецкий Автономный Округ |
| 6 | 34 | Алтайский Край, Астраханская Область, Белгородская Область, Брянская Область, Волгоградская Область, Воронежская Область, Иркутская Область, Калининградская Область, Карачаево-Черкесская Республика, Краснодарский Край, Красноярский Край, Курская Область, Нижегородская Область, Новосибирская Область, Омская Область, Оренбургская Область, Орловская Область, Республика Адыгея, Республика Калмыкия, Республика Крым, Республика Мордовия, Республика Саха, Республика Северная Осетия – Алания, Республика Татарстан, Республика Хакассия, Ростовская Область, Рязанская Область, Самарская Область, Саратовская Область, Свердловская Область, Севастополь, Ставропольский Край, Ульяновская Область, Челябинская Область. |
| 7 | 11 | Амурская Область, Кемеровская Область, Курганская Область, Липецкая Область, Новгородская Область, Пензенская Область, Республика Башкортостан, Смоленская Область, Тамбовская Область, Тверская Облсть, Тюменская Область |

Обучающая Выборка была составлена по методу полной связи, совпадение классификации с исходной составило .

Результаты анализа представлены в приложении Б

1. Пошаговый анализ. Исключение

Аналогично проведем пошаговый дискриминантный анализ с пошаговым исключением

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| N=30 | Discriminant Function Analysis Summary (Данные.sta) Step 3, N of vars in model: 6; Grouping: обучающая выборка (7 grps) Wilks' Lambda: ,00001 approx. F (36,81)=27,042 p<0,0000 | | | | | |
| |  | | --- | | Wilks' Lambda | | |  | | --- | | Partial Lambda | | |  | | --- | | F-remove (6,18) | | |  | | --- | | p-value | | |  | | --- | | Toler. | | |  | | --- | | 1-Toler. (R-Sqr.) | |
| |  | | --- | | X2 | | 0,000052 | 0,255789 | 8,7284 | 0,000153 | 0,670503 | 0,329497 |
| |  | | --- | | X3 | | 0,000059 | 0,226597 | 10,2393 | 0,000055 | 0,818038 | 0,181962 |
| |  | | --- | | X4 | | 0,000032 | 0,420042 | 4,1421 | 0,008692 | 0,572753 | 0,427247 |
| |  | | --- | | X5 | | 0,000026 | 0,506956 | 2,9177 | 0,036220 | 0,707421 | 0,292579 |
| |  | | --- | | X6 | | 0,000816 | 0,016267 | 181,4259 | 0,000000 | 0,931334 | 0,068666 |
| |  | | --- | | X9 | | 0,000082 | 0,162668 | 15,4425 | 0,000003 | 0,949579 | 0,050421 |

Рассчитаем коэффициенты линейных дискриминантных функций Фишера:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | Classification Functions; grouping: обучающая выборка (Данные.sta) | | | | | | |
| |  | | --- | | G\_1:1 p=,06667 | | |  | | --- | | G\_2:2 p=,06667 | | |  | | --- | | G\_3:3 p=,06667 | | |  | | --- | | G\_4:4 p=,26667 | | |  | | --- | | G\_5:5 p=,06667 | | |  | | --- | | G\_6:6 p=,30000 | | |  | | --- | | G\_7:7 p=,16667 | |
| |  | | --- | | X2 | | 23,827 | -10,7013 | -18,2498 | 1,3326 | 15,082 | -2,3823 | 7,0899 |
| |  | | --- | | X3 | | 10,673 | -2,4685 | -21,0493 | 5,1035 | 16,877 | -2,5051 | 0,9179 |
| |  | | --- | | X4 | | 1,864 | 4,7106 | 17,5870 | -2,0555 | -13,377 | -0,3249 | -5,9712 |
| |  | | --- | | X5 | | 3,797 | -5,0553 | -0,0645 | -0,9911 | -2,696 | -1,3874 | 4,3584 |
| |  | | --- | | X6 | | 224,268 | 13,5822 | -26,5074 | -13,3557 | 95,589 | -18,3642 | -10,6921 |
| |  | | --- | | X9 | | -14,055 | 19,2715 | -2,3620 | -0,3337 | -2,690 | 1,8666 | -1,0681 |
| |  | | --- | | Constant | | -589,576 | -51,0233 | -57,9504 | -5,4406 | -128,667 | -6,0826 | -11,8897 |

На основе рассчитанных классификационных функций проводится повторная классификация объектов обучающих выборок.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Group | Classification Matrix (Данные.sta) Rows: Observed classifications Columns: Predicted classifications | | | | | | | |
| |  | | --- | | Percent Correct | | |  | | --- | | G\_1:1 p=,06667 | | |  | | --- | | G\_2:2 p=,06667 | | |  | | --- | | G\_3:3 p=,06667 | | |  | | --- | | G\_4:4 p=,26667 | | |  | | --- | | G\_5:5 p=,06667 | | |  | | --- | | G\_6:6 p=,30000 | | |  | | --- | | G\_7:7 p=,16667 | |
| |  | | --- | | G\_1:1 | | 100,0000 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| |  | | --- | | G\_2:2 | | 100,0000 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| |  | | --- | | G\_3:3 | | 100,0000 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| |  | | --- | | G\_4:4 | | 87,5000 | 0 | 0 | 0 | 7 | 0 | 1 | 0 |
| |  | | --- | | G\_5:5 | | 100,0000 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| |  | | --- | | G\_6:6 | | 88,8889 | 0 | 0 | 0 | 1 | 0 | 8 | 0 |
| |  | | --- | | G\_7:7 | | 100,0000 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| |  | | --- | | Total | | 93,3333 | 2 | 2 | 2 | 8 | 2 | 9 | 5 |

Как видно из таблицы, изменения в первоначальном составе классов произошли: К первому классу относится 2 объекта, ко второму – 2, К третьему 2, к четвертому 8, к пятому 2, к шестому 9, при этом объект из 6 класса переместился в четвертый, и из четвертого в шестой (точность на класс 87,5% и 88,89% соответственно), К седьмому – 5 объектов

Общая точность 93,33%

|  |  |  |
| --- | --- | --- |
| Класс | Количество субъектов | Наименование субъектов |
| 1 | 2 | Ненецкий Автономный Округ, Чукотский Автономный округ; |
| 2 | 3 | Санкт-Петербург, Москва, Томская Область |
| 3 | 4 | Кабардино-балкарская Республика, Республика Дагестан, Республика Ингушетия, Чеченская Республика |
| 4 | 26 | Архангельская Область, Владимирская Область, Вологодская Область, Еврейская Автономная область, Ивановская область, Калужская область, Кировская Область, Костромская Область, Ленинградская Область, Московская Область, Мурманская Область, Пермский край, приморский край, Псковская Область, Республика Алтай, Республика Бурятия, Республика Карелия, Республика Коми, Республика Марий-Эл, Сахалинская Область, Тульская Область, Удмуртская Республика. Хабаровский Край, Чувашская Республика, Ханты-мансийский Автономный Округ, Ярославская Область |
| 5 | 5 | Забайкальский Край, Камчатский Край, Магаданская Область, Республика Тыва, Ямало-ненецкий Автономный Округ |
| 6 | 34 | Алтайский Край, Астраханская Область, Белгородская Область, Брянская Область, Волгоградская Область, Воронежская Область, Иркутская Область, Калининградская Область, Карачаево-Черкесская Республика, Краснодарский Край, Красноярский Край, Курская Область, Нижегородская Область, Новосибирская Область, Омская Область, Оренбургская Область, Орловская Область, Республика Адыгея, Республика Калмыкия, Республика Крым, Республика Мордовия, Республика Саха, Республика Северная Осетия – Алания, Республика Татарстан, Республика Хакассия, Ростовская Область, Рязанская Область, Самарская Область, Саратовская Область, Свердловская Область, Севастополь, Ставропольский Край, Ульяновская Область, Челябинская Область. |
| 7 | 11 | Амурская Область, Кемеровская Область, Курганская Область, Липецкая Область, Новгородская Область, Пензенская Область, Республика Башкортостан, Смоленская Область, Тамбовская Область, Тверская Облсть, Тюменская Область |

Результаты анализа в приложении В

Обучающая Выборка была составлена по методу полной связи, совпадение классификации с исходной составило .

# Приложение А «Результаты дискриминантного анадиза»

| Case | Classification of Cases (Данные) Incorrect classifications are marked with \* | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | Observed Classif. | | |  | | --- | | 1 p=,06667 | | |  | | --- | | 2 p=,06667 | | |  | | --- | | 3 p=,06667 | | |  | | --- | | 4 p=,26667 | | |  | | --- | | 5 p=,06667 | | |  | | --- | | 6 p=,30000 | | |  | | --- | | 7 p=,16667 | |
| |  | | --- | | 1 | | --- | G\_6:6 | G\_4:4 | G\_3:3 | G\_7:7 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 2 | | --- | G\_7:7 | G\_4:4 | G\_6:6 | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 |
| |  | | --- | | 3 | | --- | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 4 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 5 | | --- | G\_6:6 | G\_7:7 | G\_4:4 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 6 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 7 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 8 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 9 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 10 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 11 | | G\_2:2 | G\_2:2 | G\_6:6 | G\_4:4 | G\_1:1 | G\_3:3 | G\_5:5 | G\_7:7 |
| |  | | --- | | 12 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_5:5 | G\_1:1 | G\_2:2 |
| |  | | --- | | 13 | | --- | G\_5:5 | G\_4:4 | G\_7:7 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 |
| |  | | --- | | \* 14 | | G\_6:6 | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 15 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 16 | | G\_3:3 | G\_3:3 | G\_6:6 | G\_4:4 | G\_1:1 | G\_2:2 | G\_5:5 | G\_7:7 |
| |  | | --- | | 17 | | --- | G\_6:6 | G\_4:4 | G\_3:3 | G\_7:7 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 18 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 19 | | G\_5:5 | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_6:6 | G\_7:7 |
| |  | | --- | | 20 | | --- | G\_6:6 | G\_3:3 | G\_4:4 | G\_7:7 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 21 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 22 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_1:1 | G\_3:3 | G\_5:5 |
| |  | | --- | | 23 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 24 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 25 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 26 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 27 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_1:1 | G\_3:3 | G\_5:5 |
| |  | | --- | | 28 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 29 | | --- | G\_6:6 | G\_7:7 | G\_4:4 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 30 | | G\_5:5 | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_6:6 | G\_7:7 |
| |  | | --- | | 31 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 32 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 33 | | G\_1:1 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_5:5 | G\_6:6 | G\_7:7 |
| |  | | --- | | 34 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 35 | | --- | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 36 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 37 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 38 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 39 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 40 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 41 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 42 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_1:1 | G\_3:3 | G\_5:5 |
| |  | | --- | | 43 | | G\_4:4 | G\_4:4 | G\_7:7 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 44 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 45 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 46 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 47 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 48 | | --- | G\_3:3 | G\_6:6 | G\_4:4 | G\_1:1 | G\_2:2 | G\_5:5 | G\_7:7 |
| |  | | --- | | 49 | | --- | G\_3:3 | G\_1:1 | G\_2:2 | G\_4:4 | G\_5:5 | G\_6:6 | G\_7:7 |
| |  | | --- | | 50 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 51 | | --- | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 52 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 |
| |  | | --- | | 53 | | --- | G\_6:6 | G\_4:4 | G\_3:3 | G\_7:7 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 54 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 55 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 56 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 57 | | --- | G\_6:6 | G\_3:3 | G\_4:4 | G\_2:2 | G\_7:7 | G\_1:1 | G\_5:5 |
| |  | | --- | | 58 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 59 | | --- | G\_5:5 | G\_4:4 | G\_7:7 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 |
| |  | | --- | | 60 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 61 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 62 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 63 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 64 | | G\_2:2 | G\_2:2 | G\_1:1 | G\_3:3 | G\_4:4 | G\_5:5 | G\_6:6 | G\_7:7 |
| |  | | --- | | 65 | | --- | G\_6:6 | G\_4:4 | G\_3:3 | G\_7:7 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 66 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 67 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 68 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 69 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 70 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 71 | | --- | G\_6:6 | G\_7:7 | G\_4:4 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 72 | | --- | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 73 | | --- | G\_2:2 | G\_6:6 | G\_4:4 | G\_7:7 | G\_5:5 | G\_1:1 | G\_3:3 |
| |  | | --- | | 74 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 75 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_1:1 | G\_3:3 | G\_5:5 |
| |  | | --- | | 76 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 77 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 78 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_2:2 | G\_5:5 | G\_1:1 | G\_3:3 |
| |  | | --- | | 79 | | --- | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_6:6 | G\_7:7 |
| |  | | --- | | 80 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 81 | | G\_3:3 | G\_3:3 | G\_6:6 | G\_1:1 | G\_2:2 | G\_4:4 | G\_5:5 | G\_7:7 |
| |  | | --- | | 82 | | --- | G\_7:7 | G\_4:4 | G\_6:6 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 83 | | G\_1:1 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_5:5 | G\_6:6 | G\_7:7 |
| |  | | --- | | 84 | | --- | G\_7:7 | G\_4:4 | G\_6:6 | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 |
| |  | | --- | | 85 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |

| Case | Squared Mahalanobis Distances from Group Centroids (Данные) Incorrect classifications are marked with \* | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | Observed Classif. | | |  | | --- | | G\_1:1 p=,06667 | | |  | | --- | | G\_2:2 p=,06667 | | |  | | --- | | G\_3:3 p=,06667 | | |  | | --- | | G\_4:4 p=,26667 | | |  | | --- | | G\_5:5 p=,06667 | | |  | | --- | | G\_6:6 p=,30000 | | |  | | --- | | G\_7:7 p=,16667 | |
| |  | | --- | | 1 | | --- | 1730,422 | 246,127 | 137,446 | 108,216 | 568,823 | 94,774 | 139,862 |
| |  | | --- | | 2 | | --- | 972,870 | 254,269 | 329,043 | 81,813 | 143,368 | 121,682 | 80,797 |
| |  | | --- | | 3 | | --- | 1213,148 | 300,649 | 338,573 | 75,809 | 221,528 | 121,051 | 62,984 |
| |  | | --- | | 4 | | G\_6:6 | 1581,597 | 107,738 | 80,199 | 25,319 | 385,407 | 3,782 | 55,739 |
| |  | | --- | | 5 | | --- | 1512,206 | 148,131 | 103,347 | 41,281 | 379,403 | 24,101 | 29,119 |
| |  | | --- | | 6 | | --- | 1450,468 | 212,588 | 98,454 | 37,257 | 393,504 | 36,613 | 47,471 |
| |  | | --- | | 7 | | --- | 1463,082 | 197,400 | 146,363 | 30,796 | 358,408 | 40,089 | 62,216 |
| |  | | --- | | 8 | | G\_6:6 | 1614,811 | 142,679 | 65,970 | 24,748 | 414,941 | 3,328 | 45,837 |
| |  | | --- | | 9 | | G\_4:4 | 1406,160 | 184,443 | 178,177 | 6,881 | 287,515 | 31,063 | 44,592 |
| |  | | --- | | 10 | | --- | 1628,846 | 100,940 | 100,806 | 56,499 | 437,865 | 32,425 | 84,119 |
| |  | | --- | | 11 | | G\_2:2 | 1624,030 | 8,532 | 168,153 | 133,093 | 433,441 | 97,088 | 207,715 |
| |  | | --- | | 12 | | --- | 1076,777 | 351,867 | 318,478 | 191,410 | 330,276 | 223,306 | 233,693 |
| |  | | --- | | 13 | | --- | 687,447 | 358,218 | 408,737 | 245,914 | 171,663 | 278,587 | 269,065 |
| |  | | --- | | \* 14 | | G\_6:6 | 1486,321 | 155,711 | 143,537 | 3,268 | 323,157 | 8,891 | 18,363 |
| |  | | --- | | 15 | | G\_4:4 | 1581,737 | 164,624 | 149,091 | 9,248 | 376,502 | 11,794 | 26,766 |
| |  | | --- | | 16 | | G\_3:3 | 1834,819 | 204,661 | 4,698 | 131,030 | 624,281 | 75,493 | 168,194 |
| |  | | --- | | 17 | | --- | 1556,224 | 139,446 | 52,906 | 52,111 | 431,566 | 35,904 | 107,732 |
| |  | | --- | | 18 | | --- | 1481,955 | 146,409 | 121,351 | 18,133 | 325,894 | 17,118 | 62,127 |
| |  | | --- | | 19 | | G\_5:5 | 503,591 | 413,082 | 624,659 | 294,842 | 4,199 | 360,124 | 294,387 |
| |  | | --- | | 20 | | --- | 1704,056 | 143,026 | 40,098 | 83,745 | 486,350 | 37,197 | 120,495 |
| |  | | --- | | 21 | | G\_7:7 | 1186,801 | 235,387 | 202,905 | 28,536 | 225,079 | 47,250 | 11,279 |
| |  | | --- | | 22 | | G\_4:4 | 1456,600 | 150,517 | 163,819 | 6,649 | 304,246 | 19,415 | 43,209 |
| |  | | --- | | 23 | | G\_4:4 | 1438,521 | 181,937 | 155,288 | 3,413 | 301,639 | 17,625 | 21,704 |
| |  | | --- | | 24 | | G\_6:6 | 1635,760 | 140,019 | 67,815 | 34,530 | 416,773 | 12,482 | 64,790 |
| |  | | --- | | 25 | | G\_6:6 | 1577,740 | 140,280 | 91,787 | 15,197 | 395,723 | 7,801 | 45,394 |
| |  | | --- | | 26 | | G\_7:7 | 1403,647 | 261,247 | 207,127 | 40,686 | 323,553 | 51,608 | 8,227 |
| |  | | --- | | 27 | | --- | 1559,713 | 129,509 | 168,294 | 31,982 | 343,006 | 20,815 | 35,743 |
| |  | | --- | | 28 | | --- | 1532,853 | 325,633 | 259,822 | 84,391 | 359,543 | 105,438 | 85,954 |
| |  | | --- | | 29 | | --- | 1484,960 | 205,794 | 107,768 | 29,166 | 372,856 | 24,605 | 23,508 |
| |  | | --- | | 30 | | G\_5:5 | 492,406 | 404,027 | 669,731 | 311,230 | 4,199 | 384,227 | 311,703 |
| |  | | --- | | 31 | | --- | 1557,899 | 251,772 | 186,970 | 91,802 | 399,952 | 97,812 | 123,841 |
| |  | | --- | | 32 | | --- | 1139,861 | 197,224 | 211,014 | 33,674 | 188,894 | 65,183 | 67,751 |
| |  | | --- | | 33 | | G\_1:1 | 8,646 | 1568,031 | 1843,350 | 1447,927 | 516,855 | 1569,434 | 1393,554 |
| |  | | --- | | 34 | | --- | 1526,331 | 111,376 | 133,112 | 32,979 | 356,796 | 25,714 | 78,300 |
| |  | | --- | | 35 | | --- | 1383,369 | 274,433 | 264,839 | 36,528 | 273,665 | 63,360 | 16,060 |
| |  | | --- | | 36 | | --- | 1564,946 | 87,556 | 83,281 | 26,904 | 384,402 | 5,592 | 58,085 |
| |  | | --- | | 37 | | --- | 1451,440 | 90,644 | 136,769 | 43,172 | 324,713 | 24,084 | 55,669 |
| |  | | --- | | 38 | | --- | 1439,561 | 184,128 | 91,503 | 27,792 | 372,796 | 22,450 | 35,529 |
| |  | | --- | | 39 | | G\_6:6 | 1531,882 | 102,050 | 108,519 | 21,627 | 360,255 | 6,248 | 39,748 |
| |  | | --- | | 40 | | G\_7:7 | 1451,280 | 232,736 | 206,237 | 33,096 | 326,001 | 40,815 | 5,756 |
| |  | | --- | | 41 | | G\_4:4 | 1366,999 | 179,078 | 132,239 | 9,089 | 305,605 | 18,484 | 21,884 |
| |  | | --- | | 42 | | G\_4:4 | 1413,418 | 132,802 | 172,456 | 6,682 | 272,248 | 17,284 | 34,899 |
| |  | | --- | | 43 | | G\_4:4 | 1359,181 | 205,313 | 176,842 | 8,302 | 277,709 | 24,786 | 13,437 |
| |  | | --- | | 44 | | --- | 1730,175 | 137,472 | 91,095 | 49,999 | 451,526 | 19,510 | 59,335 |
| |  | | --- | | 45 | | --- | 1247,728 | 336,294 | 331,802 | 193,946 | 378,352 | 214,011 | 247,616 |
| |  | | --- | | 46 | | G\_7:7 | 1497,309 | 246,096 | 222,017 | 41,076 | 343,547 | 52,500 | 11,504 |
| |  | | --- | | 47 | | --- | 1136,367 | 183,576 | 186,921 | 28,262 | 200,952 | 44,471 | 35,069 |
| |  | | --- | | 48 | | --- | 1966,817 | 212,557 | 30,782 | 150,392 | 656,106 | 90,315 | 191,226 |
| |  | | --- | | 49 | | --- | 2188,376 | 537,407 | 241,249 | 563,551 | 1124,099 | 484,322 | 687,193 |
| |  | | --- | | 50 | | --- | 1676,993 | 127,319 | 155,719 | 56,288 | 406,143 | 33,858 | 78,615 |
| |  | | --- | | 51 | | --- | 1248,269 | 314,729 | 380,166 | 64,329 | 234,435 | 126,050 | 62,977 |
| |  | | --- | | 52 | | --- | 1051,570 | 261,999 | 345,628 | 58,963 | 157,644 | 118,075 | 78,289 |
| |  | | --- | | 53 | | --- | 1850,683 | 214,813 | 64,101 | 57,363 | 564,614 | 37,296 | 98,278 |
| |  | | --- | | 54 | | --- | 1514,365 | 161,382 | 117,350 | 8,623 | 356,004 | 9,716 | 23,722 |
| |  | | --- | | 55 | | --- | 1477,235 | 126,558 | 94,700 | 22,415 | 359,116 | 11,522 | 39,399 |
| |  | | --- | | 56 | | --- | 1400,036 | 133,177 | 127,593 | 25,522 | 324,712 | 29,192 | 57,662 |
| |  | | --- | | 57 | | --- | 1776,366 | 133,029 | 49,246 | 101,358 | 535,971 | 48,967 | 136,634 |
| |  | | --- | | 58 | | --- | 1547,677 | 98,515 | 157,186 | 32,944 | 339,926 | 26,618 | 60,016 |
| |  | | --- | | 59 | | --- | 737,396 | 466,384 | 496,003 | 337,914 | 254,477 | 363,063 | 338,115 |
| |  | | --- | | 60 | | --- | 1446,354 | 215,293 | 125,263 | 20,157 | 345,311 | 20,807 | 20,221 |
| |  | | --- | | 61 | | --- | 1647,352 | 124,816 | 57,785 | 43,613 | 446,295 | 13,772 | 54,977 |
| |  | | --- | | 62 | | --- | 1533,600 | 127,126 | 106,616 | 21,008 | 359,020 | 8,996 | 46,534 |
| |  | | --- | | 63 | | G\_6:6 | 1508,248 | 97,547 | 92,323 | 20,802 | 349,250 | 3,709 | 48,406 |
| |  | | --- | | 64 | | G\_2:2 | 1473,857 | 8,532 | 249,647 | 206,045 | 392,334 | 167,517 | 262,869 |
| |  | | --- | | 65 | | --- | 1651,764 | 123,404 | 72,528 | 51,575 | 450,505 | 23,010 | 93,454 |
| |  | | --- | | 66 | | --- | 1799,466 | 336,822 | 306,264 | 108,834 | 530,402 | 146,819 | 143,159 |
| |  | | --- | | 67 | | --- | 1461,698 | 153,590 | 152,053 | 20,965 | 323,949 | 23,262 | 25,761 |
| |  | | --- | | 68 | | --- | 2073,792 | 201,914 | 167,306 | 104,520 | 599,859 | 77,833 | 150,915 |
| |  | | --- | | 69 | | G\_7:7 | 1425,127 | 203,318 | 177,486 | 18,066 | 321,032 | 31,854 | 8,216 |
| |  | | --- | | 70 | | --- | 1812,403 | 206,487 | 126,084 | 92,165 | 498,723 | 58,478 | 97,267 |
| |  | | --- | | 71 | | --- | 1526,150 | 225,718 | 151,194 | 114,473 | 476,234 | 100,646 | 112,930 |
| |  | | --- | | 72 | | --- | 1372,206 | 241,420 | 198,531 | 25,518 | 302,100 | 47,392 | 12,997 |
| |  | | --- | | 73 | | --- | 1090,293 | 108,532 | 284,332 | 144,040 | 220,346 | 138,827 | 161,828 |
| |  | | --- | | 74 | | --- | 1561,410 | 196,928 | 186,634 | 41,648 | 344,449 | 37,747 | 41,947 |
| |  | | --- | | 75 | | --- | 1291,941 | 142,764 | 196,902 | 53,741 | 253,917 | 53,140 | 53,756 |
| |  | | --- | | 76 | | G\_4:4 | 1444,835 | 147,093 | 150,718 | 7,245 | 322,742 | 20,174 | 37,381 |
| |  | | --- | | 77 | | G\_6:6 | 1567,681 | 132,252 | 96,188 | 15,212 | 379,298 | 1,655 | 32,647 |
| |  | | --- | | 78 | | --- | 1224,197 | 161,728 | 274,372 | 40,294 | 183,672 | 65,772 | 48,380 |
| |  | | --- | | 79 | | --- | 354,567 | 684,340 | 891,644 | 595,933 | 112,521 | 662,414 | 573,800 |
| |  | | --- | | 80 | | G\_6:6 | 1503,790 | 148,021 | 122,805 | 7,662 | 339,345 | 4,463 | 23,718 |
| |  | | --- | | 81 | | G\_3:3 | 1856,742 | 205,472 | 4,698 | 183,647 | 671,108 | 115,412 | 229,519 |
| |  | | --- | | 82 | | --- | 1499,197 | 189,132 | 144,822 | 25,872 | 373,545 | 31,571 | 24,668 |
| |  | | --- | | 83 | | G\_1:1 | 8,646 | 1530,084 | 1856,105 | 1421,850 | 488,035 | 1549,073 | 1391,411 |
| |  | | --- | | 84 | | --- | 1264,608 | 330,208 | 383,522 | 191,863 | 265,880 | 206,028 | 176,561 |
| |  | | --- | | 85 | | --- | 1462,367 | 193,038 | 233,971 | 36,077 | 289,839 | 50,383 | 41,608 |

| Case | Posterior Probabilities (Данные) Incorrect classifications are marked with \* | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | Observed Classif. | | |  | | --- | | G\_1:1 p=,06667 | | |  | | --- | | G\_2:2 p=,06667 | | |  | | --- | | G\_3:3 p=,06667 | | |  | | --- | | G\_4:4 p=,26667 | | |  | | --- | | G\_5:5 p=,06667 | | |  | | --- | | G\_6:6 p=,30000 | | |  | | --- | | G\_7:7 p=,16667 | |
| |  | | --- | | 1 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,001070 | 0,000000 | 0,998930 | 0,000000 |
| |  | | --- | | 2 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,490514 | 0,000000 | 0,000000 | 0,509486 |
| |  | | --- | | 3 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,002618 | 0,000000 | 0,000000 | 0,997382 |
| |  | | --- | | 4 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,000019 | 0,000000 | 0,999981 | 0,000000 |
| |  | | --- | | 5 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000158 | 0,000000 | 0,956621 | 0,043220 |
| |  | | --- | | 6 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,391163 | 0,000000 | 0,607356 | 0,001480 |
| |  | | --- | | 7 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,989322 | 0,000000 | 0,010678 | 0,000000 |
| |  | | --- | | 8 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,000020 | 0,000000 | 0,999980 | 0,000000 |
| |  | | --- | | 9 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,999994 | 0,000000 | 0,000006 | 0,000000 |
| |  | | --- | | 10 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000005 | 0,000000 | 0,999995 | 0,000000 |
| |  | | --- | | 11 | | G\_2:2 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 12 | | --- | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 13 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 |
| |  | | --- | | \* 14 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,936366 | 0,000000 | 0,063325 | 0,000309 |
| |  | | --- | | 15 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,760409 | 0,000000 | 0,239516 | 0,000075 |
| |  | | --- | | 16 | | G\_3:3 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 17 | | --- | 0,000000 | 0,000000 | 0,000045 | 0,000269 | 0,000000 | 0,999686 | 0,000000 |
| |  | | --- | | 18 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,348516 | 0,000000 | 0,651484 | 0,000000 |
| |  | | --- | | 19 | | G\_5:5 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 20 | | --- | 0,000000 | 0,000000 | 0,049527 | 0,000000 | 0,000000 | 0,950473 | 0,000000 |
| |  | | --- | | 21 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,000286 | 0,000000 | 0,000000 | 0,999714 |
| |  | | --- | | 22 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,998102 | 0,000000 | 0,001898 | 0,000000 |
| |  | | --- | | 23 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,999011 | 0,000000 | 0,000922 | 0,000067 |
| |  | | --- | | 24 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,000014 | 0,000000 | 0,999986 | 0,000000 |
| |  | | --- | | 25 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,021543 | 0,000000 | 0,978457 | 0,000000 |
| |  | | --- | | 26 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 |
| |  | | --- | | 27 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,003329 | 0,000000 | 0,996353 | 0,000317 |
| |  | | --- | | 28 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,777512 | 0,000000 | 0,000024 | 0,222465 |
| |  | | --- | | 29 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,044291 | 0,000000 | 0,487186 | 0,468523 |
| |  | | --- | | 30 | | G\_5:5 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 31 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,947223 | 0,000000 | 0,052777 | 0,000000 |
| |  | | --- | | 32 | | --- | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 33 | | G\_1:1 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 34 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,022971 | 0,000000 | 0,977029 | 0,000000 |
| |  | | --- | | 35 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000057 | 0,000000 | 0,000000 | 0,999943 |
| |  | | --- | | 36 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000021 | 0,000000 | 0,999979 | 0,000000 |
| |  | | --- | | 37 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000064 | 0,000000 | 0,999936 | 0,000000 |
| |  | | --- | | 38 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,057915 | 0,000000 | 0,941329 | 0,000756 |
| |  | | --- | | 39 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,000407 | 0,000000 | 0,999593 | 0,000000 |
| |  | | --- | | 40 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,000002 | 0,000000 | 0,000000 | 0,999998 |
| |  | | --- | | 41 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,988829 | 0,000000 | 0,010142 | 0,001029 |
| |  | | --- | | 42 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,994421 | 0,000000 | 0,005578 | 0,000000 |
| |  | | --- | | 43 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,953987 | 0,000000 | 0,000283 | 0,045730 |
| |  | | --- | | 44 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 |
| |  | | --- | | 45 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,999951 | 0,000000 | 0,000049 | 0,000000 |
| |  | | --- | | 46 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,000001 | 0,000000 | 0,000000 | 0,999999 |
| |  | | --- | | 47 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,979311 | 0,000000 | 0,000333 | 0,020356 |
| |  | | --- | | 48 | | --- | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 49 | | --- | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 50 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000012 | 0,000000 | 0,999988 | 0,000000 |
| |  | | --- | | 51 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,448567 | 0,000000 | 0,000000 | 0,551433 |
| |  | | --- | | 52 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,999960 | 0,000000 | 0,000000 | 0,000040 |
| |  | | --- | | 53 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000039 | 0,000000 | 0,999961 | 0,000000 |
| |  | | --- | | 54 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,605431 | 0,000000 | 0,394370 | 0,000199 |
| |  | | --- | | 55 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,003818 | 0,000000 | 0,996181 | 0,000000 |
| |  | | --- | | 56 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,847782 | 0,000000 | 0,152218 | 0,000000 |
| |  | | --- | | 57 | | --- | 0,000000 | 0,000000 | 0,161974 | 0,000000 | 0,000000 | 0,838026 | 0,000000 |
| |  | | --- | | 58 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,036246 | 0,000000 | 0,963754 | 0,000000 |
| |  | | --- | | 59 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 60 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,413527 | 0,000000 | 0,336141 | 0,250332 |
| |  | | --- | | 61 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 |
| |  | | --- | | 62 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,002185 | 0,000000 | 0,997815 | 0,000000 |
| |  | | --- | | 63 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,000173 | 0,000000 | 0,999827 | 0,000000 |
| |  | | --- | | 64 | | G\_2:2 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 65 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000001 | 0,000000 | 0,999999 | 0,000000 |
| |  | | --- | | 66 | | --- | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 67 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,707498 | 0,000000 | 0,252323 | 0,040179 |
| |  | | --- | | 68 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000001 | 0,000000 | 0,999999 | 0,000000 |
| |  | | --- | | 69 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,011486 | 0,000000 | 0,000013 | 0,988501 |
| |  | | --- | | 70 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 |
| |  | | --- | | 71 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000882 | 0,000000 | 0,997925 | 0,001192 |
| |  | | --- | | 72 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,003047 | 0,000000 | 0,000000 | 0,996953 |
| |  | | --- | | 73 | | --- | 0,000000 | 0,999999 | 0,000000 | 0,000000 | 0,000000 | 0,000001 | 0,000000 |
| |  | | --- | | 74 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,105811 | 0,000000 | 0,837224 | 0,056965 |
| |  | | --- | | 75 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,318454 | 0,000000 | 0,483959 | 0,197588 |
| |  | | --- | | 76 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,998251 | 0,000000 | 0,001749 | 0,000000 |
| |  | | --- | | 77 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,001010 | 0,000000 | 0,998990 | 0,000000 |
| |  | | --- | | 78 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,989151 | 0,000000 | 0,000003 | 0,010846 |
| |  | | --- | | 79 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 80 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,152254 | 0,000000 | 0,847715 | 0,000031 |
| |  | | --- | | 81 | | G\_3:3 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 82 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,453177 | 0,000000 | 0,029506 | 0,517317 |
| |  | | --- | | 83 | | G\_1:1 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 84 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000760 | 0,000000 | 0,000001 | 0,999239 |
| |  | | --- | | 85 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,961338 | 0,000000 | 0,000846 | 0,037815 |

Приложение Б «Результаты анализа с включением»

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Case | Classification of Cases (Данные.sta) Incorrect classifications are marked with \* | | | | | | | |
| |  | | --- | | Observed Classif. | | |  | | --- | | 1 p=,06667 | | |  | | --- | | 2 p=,06667 | | |  | | --- | | 3 p=,06667 | | |  | | --- | | 4 p=,26667 | | |  | | --- | | 5 p=,06667 | | |  | | --- | | 6 p=,30000 | | |  | | --- | | 7 p=,16667 | |
| |  | | --- | | 1 | | --- | G\_6:6 | G\_3:3 | G\_4:4 | G\_7:7 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 2 | | --- | G\_7:7 | G\_4:4 | G\_6:6 | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 |
| |  | | --- | | 3 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 |
| |  | | --- | | 4 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 5 | | --- | G\_6:6 | G\_7:7 | G\_4:4 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 6 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 7 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 8 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 9 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_1:1 | G\_3:3 | G\_5:5 |
| |  | | --- | | 10 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 11 | | G\_2:2 | G\_2:2 | G\_6:6 | G\_4:4 | G\_3:3 | G\_1:1 | G\_5:5 | G\_7:7 |
| |  | | --- | | 12 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 13 | | --- | G\_5:5 | G\_4:4 | G\_7:7 | G\_6:6 | G\_2:2 | G\_1:1 | G\_3:3 |
| |  | | --- | | \* 14 | | G\_6:6 | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | \* 15 | | G\_4:4 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 16 | | G\_3:3 | G\_3:3 | G\_6:6 | G\_4:4 | G\_7:7 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 17 | | --- | G\_6:6 | G\_4:4 | G\_3:3 | G\_7:7 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 18 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 19 | | G\_5:5 | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_6:6 | G\_7:7 |
| |  | | --- | | 20 | | --- | G\_6:6 | G\_3:3 | G\_4:4 | G\_7:7 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 21 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 22 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 23 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 24 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 25 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 26 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 27 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 28 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 29 | | --- | G\_7:7 | G\_6:6 | G\_4:4 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 30 | | G\_5:5 | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_6:6 | G\_7:7 |
| |  | | --- | | 31 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 32 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_5:5 | G\_1:1 | G\_3:3 |
| |  | | --- | | 33 | | G\_1:1 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_5:5 | G\_6:6 | G\_7:7 |
| |  | | --- | | 34 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 35 | | --- | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 36 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 37 | | --- | G\_6:6 | G\_7:7 | G\_4:4 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 38 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 39 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 40 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 41 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 42 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_1:1 | G\_3:3 | G\_5:5 |
| |  | | --- | | 43 | | G\_4:4 | G\_4:4 | G\_7:7 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 44 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 45 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 46 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 47 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 48 | | --- | G\_3:3 | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 49 | | --- | G\_3:3 | G\_1:1 | G\_2:2 | G\_4:4 | G\_5:5 | G\_6:6 | G\_7:7 |
| |  | | --- | | 50 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 51 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 52 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_5:5 | G\_2:2 | G\_1:1 | G\_3:3 |
| |  | | --- | | 53 | | --- | G\_6:6 | G\_4:4 | G\_3:3 | G\_7:7 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 54 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 55 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 56 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 57 | | --- | G\_6:6 | G\_3:3 | G\_4:4 | G\_7:7 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 58 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 59 | | --- | G\_5:5 | G\_7:7 | G\_4:4 | G\_6:6 | G\_2:2 | G\_3:3 | G\_1:1 |
| |  | | --- | | 60 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 61 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 62 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 63 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 64 | | G\_2:2 | G\_2:2 | G\_6:6 | G\_1:1 | G\_3:3 | G\_4:4 | G\_5:5 | G\_7:7 |
| |  | | --- | | 65 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 66 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 67 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 68 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 69 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 70 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 71 | | --- | G\_7:7 | G\_6:6 | G\_4:4 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 72 | | --- | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 73 | | --- | G\_2:2 | G\_6:6 | G\_4:4 | G\_7:7 | G\_1:1 | G\_3:3 | G\_5:5 |
| |  | | --- | | 74 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_1:1 | G\_3:3 | G\_5:5 |
| |  | | --- | | 75 | | --- | G\_7:7 | G\_6:6 | G\_4:4 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 76 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 77 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 78 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_2:2 | G\_5:5 | G\_1:1 | G\_3:3 |
| |  | | --- | | 79 | | --- | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_6:6 | G\_7:7 |
| |  | | --- | | 80 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 81 | | G\_3:3 | G\_3:3 | G\_6:6 | G\_2:2 | G\_1:1 | G\_4:4 | G\_5:5 | G\_7:7 |
| |  | | --- | | 82 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 83 | | G\_1:1 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_5:5 | G\_6:6 | G\_7:7 |
| |  | | --- | | 84 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_5:5 | G\_2:2 | G\_1:1 | G\_3:3 |
| |  | | --- | | 85 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_2:2 | G\_1:1 | G\_3:3 | G\_5:5 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Case | Squared Mahalanobis Distances from Group Centroids (Данные.sta) Incorrect classifications are marked with \* | | | | | | | |
| |  | | --- | | Observed Classif. | | |  | | --- | | G\_1:1 p=,06667 | | |  | | --- | | G\_2:2 p=,06667 | | |  | | --- | | G\_3:3 p=,06667 | | |  | | --- | | G\_4:4 p=,26667 | | |  | | --- | | G\_5:5 p=,06667 | | |  | | --- | | G\_6:6 p=,30000 | | |  | | --- | | G\_7:7 p=,16667 | |
| |  | | --- | | 1 | | --- | 1603,839 | 190,216 | 71,432 | 74,900 | 544,5811 | 56,039 | 84,225 |
| |  | | --- | | 2 | | --- | 872,552 | 194,406 | 272,950 | 58,902 | 129,8739 | 91,527 | 41,816 |
| |  | | --- | | 3 | | --- | 1067,154 | 180,411 | 269,768 | 30,865 | 169,3149 | 67,970 | 40,485 |
| |  | | --- | | 4 | | G\_6:6 | 1411,618 | 82,015 | 73,252 | 20,637 | 366,2678 | 2,579 | 40,984 |
| |  | | --- | | 5 | | --- | 1343,287 | 104,065 | 91,866 | 33,608 | 354,9669 | 18,009 | 24,003 |
| |  | | --- | | 6 | | --- | 1336,821 | 151,301 | 80,391 | 32,543 | 381,5165 | 28,157 | 46,353 |
| |  | | --- | | 7 | | --- | 1300,723 | 162,483 | 125,662 | 14,929 | 333,4531 | 26,859 | 28,061 |
| |  | | --- | | 8 | | G\_6:6 | 1452,932 | 114,036 | 58,433 | 22,485 | 399,0019 | 3,208 | 37,445 |
| |  | | --- | | 9 | | G\_4:4 | 1267,449 | 149,566 | 164,292 | 6,591 | 278,4954 | 29,718 | 41,037 |
| |  | | --- | | 10 | | --- | 1435,718 | 82,170 | 77,991 | 39,346 | 409,2425 | 20,029 | 46,128 |
| |  | | --- | | 11 | | G\_2:2 | 1360,376 | 4,967 | 139,056 | 104,383 | 384,8696 | 78,233 | 156,434 |
| |  | | --- | | 12 | | --- | 950,771 | 218,377 | 203,324 | 103,618 | 257,2826 | 127,909 | 117,988 |
| |  | | --- | | 13 | | --- | 630,481 | 173,026 | 260,783 | 146,232 | 100,9717 | 160,822 | 153,963 |
| |  | | --- | | \* 14 | | G\_6:6 | 1341,731 | 118,392 | 131,124 | 1,931 | 311,0401 | 7,066 | 15,640 |
| |  | | --- | | \* 15 | | G\_4:4 | 1450,617 | 133,024 | 124,059 | 8,258 | 372,1948 | 7,495 | 21,211 |
| |  | | --- | | 16 | | G\_3:3 | 1632,529 | 169,647 | 3,128 | 115,745 | 585,9499 | 68,035 | 142,095 |
| |  | | --- | | 17 | | --- | 1389,749 | 108,853 | 44,040 | 43,760 | 409,6651 | 31,162 | 86,418 |
| |  | | --- | | 18 | | --- | 1291,654 | 121,725 | 116,615 | 11,591 | 300,3774 | 15,699 | 48,470 |
| |  | | --- | | 19 | | G\_5:5 | 423,255 | 349,091 | 587,823 | 288,396 | 2,4343 | 345,067 | 286,983 |
| |  | | --- | | 20 | | --- | 1497,870 | 110,611 | 36,031 | 66,413 | 446,7568 | 28,067 | 89,285 |
| |  | | --- | | 21 | | G\_7:7 | 1097,892 | 166,379 | 174,295 | 22,530 | 218,4930 | 34,142 | 8,657 |
| |  | | --- | | 22 | | G\_4:4 | 1328,479 | 119,363 | 139,450 | 3,783 | 299,0812 | 13,940 | 30,324 |
| |  | | --- | | 23 | | G\_4:4 | 1296,721 | 147,933 | 142,973 | 2,977 | 291,6185 | 16,697 | 17,408 |
| |  | | --- | | 24 | | G\_6:6 | 1404,598 | 126,740 | 56,077 | 20,631 | 380,6250 | 6,321 | 41,100 |
| |  | | --- | | 25 | | G\_6:6 | 1430,261 | 117,551 | 69,562 | 13,417 | 388,4708 | 4,817 | 35,116 |
| |  | | --- | | 26 | | G\_7:7 | 1317,516 | 191,159 | 163,279 | 31,375 | 318,5315 | 32,481 | 4,265 |
| |  | | --- | | 27 | | --- | 1377,957 | 106,416 | 156,338 | 27,445 | 323,1747 | 19,060 | 26,720 |
| |  | | --- | | 28 | | --- | 1281,661 | 230,826 | 211,360 | 30,521 | 277,3728 | 55,697 | 48,713 |
| |  | | --- | | 29 | | --- | 1326,026 | 172,592 | 99,403 | 26,819 | 356,6535 | 23,738 | 18,103 |
| |  | | --- | | 30 | | G\_5:5 | 386,424 | 360,302 | 617,988 | 301,409 | 2,4343 | 365,838 | 295,702 |
| |  | | --- | | 31 | | --- | 1275,585 | 153,198 | 122,444 | 24,742 | 303,4557 | 35,507 | 74,181 |
| |  | | --- | | 32 | | --- | 986,316 | 165,744 | 196,421 | 32,027 | 176,4181 | 63,388 | 63,942 |
| |  | | --- | | 33 | | G\_1:1 | 7,139 | 1276,763 | 1642,655 | 1311,362 | 417,9006 | 1402,462 | 1272,367 |
| |  | | --- | | 34 | | --- | 1316,083 | 92,440 | 98,264 | 5,718 | 319,2913 | 3,857 | 25,440 |
| |  | | --- | | 35 | | --- | 1238,577 | 218,199 | 241,836 | 27,457 | 253,6059 | 51,910 | 13,829 |
| |  | | --- | | 36 | | --- | 1388,826 | 65,503 | 75,494 | 22,942 | 365,5080 | 5,179 | 45,168 |
| |  | | --- | | 37 | | --- | 1285,429 | 65,254 | 121,933 | 34,359 | 305,2621 | 18,107 | 31,511 |
| |  | | --- | | 38 | | --- | 1335,104 | 129,443 | 72,400 | 24,964 | 366,1867 | 15,475 | 30,690 |
| |  | | --- | | 39 | | G\_6:6 | 1365,247 | 73,347 | 102,763 | 17,850 | 341,5890 | 5,595 | 28,135 |
| |  | | --- | | 40 | | G\_7:7 | 1312,503 | 193,338 | 195,177 | 32,022 | 314,5835 | 39,160 | 2,445 |
| |  | | --- | | 41 | | G\_4:4 | 1250,042 | 126,565 | 113,199 | 6,635 | 296,9516 | 12,274 | 21,386 |
| |  | | --- | | 42 | | G\_4:4 | 1236,650 | 118,542 | 154,631 | 2,176 | 257,1069 | 14,898 | 19,302 |
| |  | | --- | | 43 | | G\_4:4 | 1224,095 | 162,947 | 166,346 | 6,853 | 265,9960 | 22,638 | 9,824 |
| |  | | --- | | 44 | | --- | 1503,754 | 107,153 | 77,934 | 33,274 | 410,5789 | 9,340 | 41,387 |
| |  | | --- | | 45 | | --- | 1082,160 | 142,898 | 105,596 | 30,224 | 250,1740 | 35,163 | 45,732 |
| |  | | --- | | 46 | | G\_7:7 | 1336,717 | 173,443 | 185,177 | 19,586 | 309,7146 | 28,001 | 2,546 |
| |  | | --- | | 47 | | --- | 1067,040 | 110,983 | 141,996 | 17,867 | 198,5653 | 23,719 | 23,796 |
| |  | | --- | | 48 | | --- | 1706,424 | 163,063 | 18,439 | 118,266 | 590,6271 | 68,598 | 160,164 |
| |  | | --- | | 49 | | --- | 1913,009 | 394,763 | 130,426 | 432,032 | 979,6022 | 362,083 | 515,491 |
| |  | | --- | | 50 | | --- | 1492,895 | 110,521 | 136,014 | 44,587 | 383,5474 | 25,958 | 48,906 |
| |  | | --- | | 51 | | --- | 1151,078 | 221,817 | 319,443 | 41,172 | 214,8428 | 91,461 | 53,533 |
| |  | | --- | | 52 | | --- | 989,148 | 174,858 | 273,450 | 37,723 | 151,6482 | 81,894 | 60,896 |
| |  | | --- | | 53 | | --- | 1661,971 | 185,962 | 61,240 | 49,873 | 537,2661 | 35,227 | 83,913 |
| |  | | --- | | 54 | | --- | 1370,032 | 117,673 | 110,748 | 5,266 | 339,4087 | 7,235 | 17,625 |
| |  | | --- | | 55 | | --- | 1343,159 | 81,629 | 85,109 | 17,554 | 344,1192 | 6,949 | 27,442 |
| |  | | --- | | 56 | | --- | 1274,884 | 92,950 | 73,260 | 13,983 | 318,7165 | 9,772 | 43,127 |
| |  | | --- | | 57 | | --- | 1542,367 | 105,570 | 27,151 | 68,915 | 483,8280 | 26,224 | 79,570 |
| |  | | --- | | 58 | | --- | 1358,066 | 66,354 | 137,710 | 22,997 | 313,7967 | 18,673 | 50,964 |
| |  | | --- | | 59 | | --- | 650,186 | 207,645 | 264,656 | 167,582 | 124,7836 | 170,477 | 144,926 |
| |  | | --- | | 60 | | --- | 1346,250 | 158,681 | 94,201 | 16,256 | 341,3657 | 10,013 | 18,686 |
| |  | | --- | | 61 | | --- | 1458,014 | 90,041 | 50,557 | 35,029 | 417,6393 | 9,380 | 45,341 |
| |  | | --- | | 62 | | --- | 1340,238 | 106,110 | 94,533 | 7,955 | 330,3741 | 1,750 | 16,439 |
| |  | | --- | | 63 | | G\_6:6 | 1330,196 | 72,524 | 86,879 | 15,476 | 327,5645 | 2,659 | 33,768 |
| |  | | --- | | 64 | | G\_2:2 | 1171,625 | 4,967 | 183,108 | 158,605 | 329,5898 | 127,782 | 194,829 |
| |  | | --- | | 65 | | --- | 1463,750 | 95,248 | 48,533 | 30,155 | 417,7709 | 6,372 | 50,100 |
| |  | | --- | | 66 | | --- | 1587,093 | 268,245 | 197,850 | 53,075 | 476,6212 | 83,353 | 93,767 |
| |  | | --- | | 67 | | --- | 1299,872 | 94,120 | 118,221 | 4,636 | 296,2492 | 4,323 | 18,756 |
| |  | | --- | | 68 | | --- | 1791,282 | 170,442 | 136,871 | 69,469 | 535,7985 | 52,062 | 114,758 |
| |  | | --- | | 69 | | G\_7:7 | 1293,336 | 154,312 | 162,092 | 15,097 | 308,5270 | 26,806 | 7,396 |
| |  | | --- | | 70 | | --- | 1554,992 | 145,002 | 104,458 | 55,154 | 429,5667 | 30,002 | 66,660 |
| |  | | --- | | 71 | | --- | 1404,437 | 176,276 | 110,618 | 95,417 | 459,5136 | 78,263 | 76,271 |
| |  | | --- | | 72 | | --- | 1237,115 | 193,427 | 186,964 | 22,670 | 288,2291 | 43,493 | 10,939 |
| |  | | --- | | 73 | | --- | 1003,643 | 33,378 | 259,406 | 134,458 | 209,0961 | 123,462 | 151,519 |
| |  | | --- | | 74 | | --- | 1337,372 | 154,917 | 174,723 | 21,884 | 298,5920 | 24,601 | 23,973 |
| |  | | --- | | 75 | | --- | 1137,184 | 114,285 | 165,078 | 38,873 | 235,7504 | 38,440 | 19,629 |
| |  | | --- | | 76 | | G\_4:4 | 1343,499 | 96,530 | 122,357 | 4,986 | 320,5597 | 11,751 | 34,246 |
| |  | | --- | | 77 | | G\_6:6 | 1415,038 | 96,699 | 88,123 | 13,208 | 364,1641 | 0,730 | 27,488 |
| |  | | --- | | 78 | | --- | 1061,938 | 122,821 | 254,789 | 34,084 | 165,1258 | 59,140 | 44,491 |
| |  | | --- | | 79 | | --- | 226,361 | 568,719 | 806,031 | 551,206 | 69,7781 | 605,589 | 549,535 |
| |  | | --- | | 80 | | G\_6:6 | 1369,673 | 116,156 | 103,476 | 7,504 | 333,5319 | 2,118 | 18,920 |
| |  | | --- | | 81 | | G\_3:3 | 1648,879 | 148,838 | 3,128 | 161,774 | 621,2486 | 101,465 | 206,045 |
| |  | | --- | | 82 | | --- | 1373,893 | 132,662 | 132,996 | 21,468 | 358,7395 | 25,507 | 21,690 |
| |  | | --- | | 83 | | G\_1:1 | 7,139 | 1259,581 | 1646,775 | 1291,739 | 401,1873 | 1386,527 | 1274,972 |
| |  | | --- | | 84 | | --- | 993,914 | 206,980 | 292,942 | 111,178 | 161,9820 | 125,582 | 119,150 |
| |  | | --- | | 85 | | --- | 1263,498 | 142,187 | 217,592 | 18,552 | 250,4841 | 36,343 | 29,659 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Case | Posterior Probabilities (Данные.sta) Incorrect classifications are marked with \* | | | | | | | |
| |  | | --- | | Observed Classif. | | |  | | --- | | G\_1:1 p=,06667 | | |  | | --- | | G\_2:2 p=,06667 | | |  | | --- | | G\_3:3 p=,06667 | | |  | | --- | | G\_4:4 p=,26667 | | |  | | --- | | G\_5:5 p=,06667 | | |  | | --- | | G\_6:6 p=,30000 | | |  | | --- | | G\_7:7 p=,16667 | |
| |  | | --- | | 1 | | --- | 0,000000 | 0,000000 | 0,000101 | 0,000071 | 0,000000 | 0,999827 | 0,000000 |
| |  | | --- | | 2 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000312 | 0,000000 | 0,000000 | 0,999688 |
| |  | | --- | | 3 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,994933 | 0,000000 | 0,000000 | 0,005067 |
| |  | | --- | | 4 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,000107 | 0,000000 | 0,999893 | 0,000000 |
| |  | | --- | | 5 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000354 | 0,000000 | 0,972662 | 0,026983 |
| |  | | --- | | 6 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,090251 | 0,000000 | 0,909692 | 0,000057 |
| |  | | --- | | 7 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,996245 | 0,000000 | 0,002878 | 0,000877 |
| |  | | --- | | 8 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,000058 | 0,000000 | 0,999942 | 0,000000 |
| |  | | --- | | 9 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,999989 | 0,000000 | 0,000011 | 0,000000 |
| |  | | --- | | 10 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000057 | 0,000000 | 0,999942 | 0,000001 |
| |  | | --- | | 11 | | G\_2:2 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 12 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,999521 | 0,000000 | 0,000006 | 0,000473 |
| |  | | --- | | 13 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 |
| |  | | --- | | \* 14 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,919976 | 0,000000 | 0,079417 | 0,000606 |
| |  | | --- | | \* 15 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,377610 | 0,000000 | 0,622027 | 0,000363 |
| |  | | --- | | 16 | | G\_3:3 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 17 | | --- | 0,000000 | 0,000000 | 0,000355 | 0,001631 | 0,000000 | 0,998014 | 0,000000 |
| |  | | --- | | 18 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,873939 | 0,000000 | 0,126061 | 0,000000 |
| |  | | --- | | 19 | | G\_5:5 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 20 | | --- | 0,000000 | 0,000000 | 0,004128 | 0,000000 | 0,000000 | 0,995872 | 0,000000 |
| |  | | --- | | 21 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,001552 | 0,000000 | 0,000005 | 0,998443 |
| |  | | --- | | 22 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,993040 | 0,000000 | 0,006959 | 0,000001 |
| |  | | --- | | 23 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,998363 | 0,000000 | 0,001178 | 0,000459 |
| |  | | --- | | 24 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,000694 | 0,000000 | 0,999306 | 0,000000 |
| |  | | --- | | 25 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,011917 | 0,000000 | 0,988083 | 0,000000 |
| |  | | --- | | 26 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,000002 | 0,000000 | 0,000001 | 0,999997 |
| |  | | --- | | 27 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,013095 | 0,000000 | 0,975146 | 0,011759 |
| |  | | --- | | 28 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,999926 | 0,000000 | 0,000004 | 0,000070 |
| |  | | --- | | 29 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,018165 | 0,000000 | 0,095349 | 0,886486 |
| |  | | --- | | 30 | | G\_5:5 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 31 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,994858 | 0,000000 | 0,005142 | 0,000000 |
| |  | | --- | | 32 | | --- | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 33 | | G\_1:1 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 34 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,259577 | 0,000000 | 0,740415 | 0,000008 |
| |  | | --- | | 35 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,001754 | 0,000000 | 0,000000 | 0,998246 |
| |  | | --- | | 36 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000123 | 0,000000 | 0,999877 | 0,000000 |
| |  | | --- | | 37 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000263 | 0,000000 | 0,999056 | 0,000682 |
| |  | | --- | | 38 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,007673 | 0,000000 | 0,992053 | 0,000274 |
| |  | | --- | | 39 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,001935 | 0,000000 | 0,998057 | 0,000007 |
| |  | | --- | | 40 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,000001 | 0,000000 | 0,000000 | 0,999999 |
| |  | | --- | | 41 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,936780 | 0,000000 | 0,062854 | 0,000367 |
| |  | | --- | | 42 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,997941 | 0,000000 | 0,001940 | 0,000119 |
| |  | | --- | | 43 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,875701 | 0,000000 | 0,000368 | 0,123931 |
| |  | | --- | | 44 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000006 | 0,000000 | 0,999994 | 0,000000 |
| |  | | --- | | 45 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,912834 | 0,000000 | 0,086922 | 0,000245 |
| |  | | --- | | 46 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,000319 | 0,000000 | 0,000005 | 0,999676 |
| |  | | --- | | 47 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,915281 | 0,000000 | 0,055210 | 0,029510 |
| |  | | --- | | 48 | | --- | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 49 | | --- | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 50 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000080 | 0,000000 | 0,999914 | 0,000006 |
| |  | | --- | | 51 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,998708 | 0,000000 | 0,000000 | 0,001292 |
| |  | | --- | | 52 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,999994 | 0,000000 | 0,000000 | 0,000006 |
| |  | | --- | | 53 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000587 | 0,000000 | 0,999413 | 0,000000 |
| |  | | --- | | 54 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,703425 | 0,000000 | 0,295665 | 0,000910 |
| |  | | --- | | 55 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,004405 | 0,000000 | 0,995575 | 0,000020 |
| |  | | --- | | 56 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,097647 | 0,000000 | 0,902353 | 0,000000 |
| |  | | --- | | 57 | | --- | 0,000000 | 0,000000 | 0,122669 | 0,000000 | 0,000000 | 0,877331 | 0,000000 |
| |  | | --- | | 58 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,092801 | 0,000000 | 0,907199 | 0,000000 |
| |  | | --- | | 59 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,999894 | 0,000000 | 0,000106 |
| |  | | --- | | 60 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,037466 | 0,000000 | 0,955587 | 0,006948 |
| |  | | --- | | 61 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000002 | 0,000000 | 0,999998 | 0,000000 |
| |  | | --- | | 62 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,038395 | 0,000000 | 0,961260 | 0,000345 |
| |  | | --- | | 63 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,001462 | 0,000000 | 0,998538 | 0,000000 |
| |  | | --- | | 64 | | G\_2:2 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 65 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000006 | 0,000000 | 0,999994 | 0,000000 |
| |  | | --- | | 66 | | --- | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 67 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,431767 | 0,000000 | 0,568001 | 0,000232 |
| |  | | --- | | 68 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000148 | 0,000000 | 0,999852 | 0,000000 |
| |  | | --- | | 69 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,032915 | 0,000000 | 0,000106 | 0,966979 |
| |  | | --- | | 70 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000003 | 0,000000 | 0,999997 | 0,000000 |
| |  | | --- | | 71 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000067 | 0,000000 | 0,399285 | 0,600648 |
| |  | | --- | | 72 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,004516 | 0,000000 | 0,000000 | 0,995484 |
| |  | | --- | | 73 | | --- | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 74 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,662569 | 0,000000 | 0,191668 | 0,145763 |
| |  | | --- | | 75 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000106 | 0,000000 | 0,000148 | 0,999746 |
| |  | | --- | | 76 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,963191 | 0,000000 | 0,036809 | 0,000000 |
| |  | | --- | | 77 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,001732 | 0,000000 | 0,998267 | 0,000001 |
| |  | | --- | | 78 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,996571 | 0,000000 | 0,000004 | 0,003425 |
| |  | | --- | | 79 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 80 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,056741 | 0,000000 | 0,943141 | 0,000118 |
| |  | | --- | | 81 | | G\_3:3 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 82 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,585274 | 0,000000 | 0,087394 | 0,327332 |
| |  | | --- | | 83 | | G\_1:1 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 84 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,987707 | 0,000000 | 0,000828 | 0,011465 |
| |  | | --- | | 85 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,997431 | 0,000000 | 0,000154 | 0,002415 |

Приложение В «Результаты анализа с исключением»

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Case | Classification of Cases (Данные.sta) Incorrect classifications are marked with \* | | | | | | | |
| |  | | --- | | Observed Classif. | | |  | | --- | | 1 p=,06667 | | |  | | --- | | 2 p=,06667 | | |  | | --- | | 3 p=,06667 | | |  | | --- | | 4 p=,26667 | | |  | | --- | | 5 p=,06667 | | |  | | --- | | 6 p=,30000 | | |  | | --- | | 7 p=,16667 | |
| |  | | --- | | 1 | | --- | G\_6:6 | G\_3:3 | G\_4:4 | G\_7:7 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 2 | | --- | G\_7:7 | G\_4:4 | G\_6:6 | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 |
| |  | | --- | | 3 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 |
| |  | | --- | | 4 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 5 | | --- | G\_6:6 | G\_7:7 | G\_4:4 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 6 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 7 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 8 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 9 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_1:1 | G\_3:3 | G\_5:5 |
| |  | | --- | | 10 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 11 | | G\_2:2 | G\_2:2 | G\_6:6 | G\_4:4 | G\_3:3 | G\_1:1 | G\_5:5 | G\_7:7 |
| |  | | --- | | 12 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 13 | | --- | G\_5:5 | G\_4:4 | G\_7:7 | G\_6:6 | G\_2:2 | G\_1:1 | G\_3:3 |
| |  | | --- | | \* 14 | | G\_6:6 | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | \* 15 | | G\_4:4 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 16 | | G\_3:3 | G\_3:3 | G\_6:6 | G\_4:4 | G\_7:7 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 17 | | --- | G\_6:6 | G\_4:4 | G\_3:3 | G\_7:7 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 18 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 19 | | G\_5:5 | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_6:6 | G\_7:7 |
| |  | | --- | | 20 | | --- | G\_6:6 | G\_3:3 | G\_4:4 | G\_7:7 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 21 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 22 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 23 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 24 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 25 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 26 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 27 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 28 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 29 | | --- | G\_7:7 | G\_6:6 | G\_4:4 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 30 | | G\_5:5 | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_6:6 | G\_7:7 |
| |  | | --- | | 31 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 32 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_5:5 | G\_1:1 | G\_3:3 |
| |  | | --- | | 33 | | G\_1:1 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_5:5 | G\_6:6 | G\_7:7 |
| |  | | --- | | 34 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 35 | | --- | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 36 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 37 | | --- | G\_6:6 | G\_7:7 | G\_4:4 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 38 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 39 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 40 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 41 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 42 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_1:1 | G\_3:3 | G\_5:5 |
| |  | | --- | | 43 | | G\_4:4 | G\_4:4 | G\_7:7 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 44 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 45 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 46 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 47 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 48 | | --- | G\_3:3 | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 49 | | --- | G\_3:3 | G\_1:1 | G\_2:2 | G\_4:4 | G\_5:5 | G\_6:6 | G\_7:7 |
| |  | | --- | | 50 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 51 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 52 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_5:5 | G\_2:2 | G\_1:1 | G\_3:3 |
| |  | | --- | | 53 | | --- | G\_6:6 | G\_4:4 | G\_3:3 | G\_7:7 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 54 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 55 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 56 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 57 | | --- | G\_6:6 | G\_3:3 | G\_4:4 | G\_7:7 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 58 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 59 | | --- | G\_5:5 | G\_7:7 | G\_4:4 | G\_6:6 | G\_2:2 | G\_3:3 | G\_1:1 |
| |  | | --- | | 60 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_1:1 | G\_2:2 | G\_5:5 |
| |  | | --- | | 61 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 62 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 63 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 64 | | G\_2:2 | G\_2:2 | G\_6:6 | G\_1:1 | G\_3:3 | G\_4:4 | G\_5:5 | G\_7:7 |
| |  | | --- | | 65 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 66 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 67 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 68 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 69 | | G\_7:7 | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 70 | | --- | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 71 | | --- | G\_7:7 | G\_6:6 | G\_4:4 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 72 | | --- | G\_7:7 | G\_4:4 | G\_6:6 | G\_1:1 | G\_2:2 | G\_3:3 | G\_5:5 |
| |  | | --- | | 73 | | --- | G\_2:2 | G\_6:6 | G\_4:4 | G\_7:7 | G\_1:1 | G\_3:3 | G\_5:5 |
| |  | | --- | | 74 | | --- | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_1:1 | G\_3:3 | G\_5:5 |
| |  | | --- | | 75 | | --- | G\_7:7 | G\_6:6 | G\_4:4 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 76 | | G\_4:4 | G\_4:4 | G\_6:6 | G\_7:7 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 77 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 78 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_2:2 | G\_5:5 | G\_1:1 | G\_3:3 |
| |  | | --- | | 79 | | --- | G\_5:5 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_6:6 | G\_7:7 |
| |  | | --- | | 80 | | G\_6:6 | G\_6:6 | G\_4:4 | G\_7:7 | G\_3:3 | G\_2:2 | G\_1:1 | G\_5:5 |
| |  | | --- | | 81 | | G\_3:3 | G\_3:3 | G\_6:6 | G\_2:2 | G\_1:1 | G\_4:4 | G\_5:5 | G\_7:7 |
| |  | | --- | | 82 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_2:2 | G\_3:3 | G\_1:1 | G\_5:5 |
| |  | | --- | | 83 | | G\_1:1 | G\_1:1 | G\_2:2 | G\_3:3 | G\_4:4 | G\_5:5 | G\_6:6 | G\_7:7 |
| |  | | --- | | 84 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_5:5 | G\_2:2 | G\_1:1 | G\_3:3 |
| |  | | --- | | 85 | | --- | G\_4:4 | G\_7:7 | G\_6:6 | G\_2:2 | G\_1:1 | G\_3:3 | G\_5:5 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Case | Squared Mahalanobis Distances from Group Centroids (Данные.sta) Incorrect classifications are marked with \* | | | | | | | |
| |  | | --- | | Observed Classif. | | |  | | --- | | G\_1:1 p=,06667 | | |  | | --- | | G\_2:2 p=,06667 | | |  | | --- | | G\_3:3 p=,06667 | | |  | | --- | | G\_4:4 p=,26667 | | |  | | --- | | G\_5:5 p=,06667 | | |  | | --- | | G\_6:6 p=,30000 | | |  | | --- | | G\_7:7 p=,16667 | |
| |  | | --- | | 1 | | --- | 1603,839 | 190,216 | 71,432 | 74,900 | 544,5811 | 56,039 | 84,225 |
| |  | | --- | | 2 | | --- | 872,552 | 194,406 | 272,950 | 58,902 | 129,8739 | 91,527 | 41,816 |
| |  | | --- | | 3 | | --- | 1067,154 | 180,411 | 269,768 | 30,865 | 169,3149 | 67,970 | 40,485 |
| |  | | --- | | 4 | | G\_6:6 | 1411,618 | 82,015 | 73,252 | 20,637 | 366,2678 | 2,579 | 40,984 |
| |  | | --- | | 5 | | --- | 1343,287 | 104,065 | 91,866 | 33,608 | 354,9669 | 18,009 | 24,003 |
| |  | | --- | | 6 | | --- | 1336,821 | 151,301 | 80,391 | 32,543 | 381,5165 | 28,157 | 46,353 |
| |  | | --- | | 7 | | --- | 1300,723 | 162,483 | 125,662 | 14,929 | 333,4531 | 26,859 | 28,061 |
| |  | | --- | | 8 | | G\_6:6 | 1452,932 | 114,036 | 58,433 | 22,485 | 399,0019 | 3,208 | 37,445 |
| |  | | --- | | 9 | | G\_4:4 | 1267,449 | 149,566 | 164,292 | 6,591 | 278,4954 | 29,718 | 41,037 |
| |  | | --- | | 10 | | --- | 1435,718 | 82,170 | 77,991 | 39,346 | 409,2425 | 20,029 | 46,128 |
| |  | | --- | | 11 | | G\_2:2 | 1360,376 | 4,967 | 139,056 | 104,383 | 384,8696 | 78,233 | 156,434 |
| |  | | --- | | 12 | | --- | 950,771 | 218,377 | 203,324 | 103,618 | 257,2826 | 127,909 | 117,988 |
| |  | | --- | | 13 | | --- | 630,481 | 173,026 | 260,783 | 146,232 | 100,9717 | 160,822 | 153,963 |
| |  | | --- | | \* 14 | | G\_6:6 | 1341,731 | 118,392 | 131,124 | 1,931 | 311,0401 | 7,066 | 15,640 |
| |  | | --- | | \* 15 | | G\_4:4 | 1450,617 | 133,024 | 124,059 | 8,258 | 372,1948 | 7,495 | 21,211 |
| |  | | --- | | 16 | | G\_3:3 | 1632,529 | 169,647 | 3,128 | 115,745 | 585,9499 | 68,035 | 142,095 |
| |  | | --- | | 17 | | --- | 1389,749 | 108,853 | 44,040 | 43,760 | 409,6651 | 31,162 | 86,418 |
| |  | | --- | | 18 | | --- | 1291,654 | 121,725 | 116,615 | 11,591 | 300,3774 | 15,699 | 48,470 |
| |  | | --- | | 19 | | G\_5:5 | 423,255 | 349,091 | 587,823 | 288,396 | 2,4343 | 345,067 | 286,983 |
| |  | | --- | | 20 | | --- | 1497,870 | 110,611 | 36,031 | 66,413 | 446,7568 | 28,067 | 89,285 |
| |  | | --- | | 21 | | G\_7:7 | 1097,892 | 166,379 | 174,295 | 22,530 | 218,4930 | 34,142 | 8,657 |
| |  | | --- | | 22 | | G\_4:4 | 1328,479 | 119,363 | 139,450 | 3,783 | 299,0812 | 13,940 | 30,324 |
| |  | | --- | | 23 | | G\_4:4 | 1296,721 | 147,933 | 142,973 | 2,977 | 291,6185 | 16,697 | 17,408 |
| |  | | --- | | 24 | | G\_6:6 | 1404,598 | 126,740 | 56,077 | 20,631 | 380,6250 | 6,321 | 41,100 |
| |  | | --- | | 25 | | G\_6:6 | 1430,261 | 117,551 | 69,562 | 13,417 | 388,4708 | 4,817 | 35,116 |
| |  | | --- | | 26 | | G\_7:7 | 1317,516 | 191,159 | 163,279 | 31,375 | 318,5315 | 32,481 | 4,265 |
| |  | | --- | | 27 | | --- | 1377,957 | 106,416 | 156,338 | 27,445 | 323,1747 | 19,060 | 26,720 |
| |  | | --- | | 28 | | --- | 1281,661 | 230,826 | 211,360 | 30,521 | 277,3728 | 55,697 | 48,713 |
| |  | | --- | | 29 | | --- | 1326,026 | 172,592 | 99,403 | 26,819 | 356,6535 | 23,738 | 18,103 |
| |  | | --- | | 30 | | G\_5:5 | 386,424 | 360,302 | 617,988 | 301,409 | 2,4343 | 365,838 | 295,702 |
| |  | | --- | | 31 | | --- | 1275,585 | 153,198 | 122,444 | 24,742 | 303,4557 | 35,507 | 74,181 |
| |  | | --- | | 32 | | --- | 986,316 | 165,744 | 196,421 | 32,027 | 176,4181 | 63,388 | 63,942 |
| |  | | --- | | 33 | | G\_1:1 | 7,139 | 1276,763 | 1642,655 | 1311,362 | 417,9006 | 1402,462 | 1272,367 |
| |  | | --- | | 34 | | --- | 1316,083 | 92,440 | 98,264 | 5,718 | 319,2913 | 3,857 | 25,440 |
| |  | | --- | | 35 | | --- | 1238,577 | 218,199 | 241,836 | 27,457 | 253,6059 | 51,910 | 13,829 |
| |  | | --- | | 36 | | --- | 1388,826 | 65,503 | 75,494 | 22,942 | 365,5080 | 5,179 | 45,168 |
| |  | | --- | | 37 | | --- | 1285,429 | 65,254 | 121,933 | 34,359 | 305,2621 | 18,107 | 31,511 |
| |  | | --- | | 38 | | --- | 1335,104 | 129,443 | 72,400 | 24,964 | 366,1867 | 15,475 | 30,690 |
| |  | | --- | | 39 | | G\_6:6 | 1365,247 | 73,347 | 102,763 | 17,850 | 341,5890 | 5,595 | 28,135 |
| |  | | --- | | 40 | | G\_7:7 | 1312,503 | 193,338 | 195,177 | 32,022 | 314,5835 | 39,160 | 2,445 |
| |  | | --- | | 41 | | G\_4:4 | 1250,042 | 126,565 | 113,199 | 6,635 | 296,9516 | 12,274 | 21,386 |
| |  | | --- | | 42 | | G\_4:4 | 1236,650 | 118,542 | 154,631 | 2,176 | 257,1069 | 14,898 | 19,302 |
| |  | | --- | | 43 | | G\_4:4 | 1224,095 | 162,947 | 166,346 | 6,853 | 265,9960 | 22,638 | 9,824 |
| |  | | --- | | 44 | | --- | 1503,754 | 107,153 | 77,934 | 33,274 | 410,5789 | 9,340 | 41,387 |
| |  | | --- | | 45 | | --- | 1082,160 | 142,898 | 105,596 | 30,224 | 250,1740 | 35,163 | 45,732 |
| |  | | --- | | 46 | | G\_7:7 | 1336,717 | 173,443 | 185,177 | 19,586 | 309,7146 | 28,001 | 2,546 |
| |  | | --- | | 47 | | --- | 1067,040 | 110,983 | 141,996 | 17,867 | 198,5653 | 23,719 | 23,796 |
| |  | | --- | | 48 | | --- | 1706,424 | 163,063 | 18,439 | 118,266 | 590,6271 | 68,598 | 160,164 |
| |  | | --- | | 49 | | --- | 1913,009 | 394,763 | 130,426 | 432,032 | 979,6022 | 362,083 | 515,491 |
| |  | | --- | | 50 | | --- | 1492,895 | 110,521 | 136,014 | 44,587 | 383,5474 | 25,958 | 48,906 |
| |  | | --- | | 51 | | --- | 1151,078 | 221,817 | 319,443 | 41,172 | 214,8428 | 91,461 | 53,533 |
| |  | | --- | | 52 | | --- | 989,148 | 174,858 | 273,450 | 37,723 | 151,6482 | 81,894 | 60,896 |
| |  | | --- | | 53 | | --- | 1661,971 | 185,962 | 61,240 | 49,873 | 537,2661 | 35,227 | 83,913 |
| |  | | --- | | 54 | | --- | 1370,032 | 117,673 | 110,748 | 5,266 | 339,4087 | 7,235 | 17,625 |
| |  | | --- | | 55 | | --- | 1343,159 | 81,629 | 85,109 | 17,554 | 344,1192 | 6,949 | 27,442 |
| |  | | --- | | 56 | | --- | 1274,884 | 92,950 | 73,260 | 13,983 | 318,7165 | 9,772 | 43,127 |
| |  | | --- | | 57 | | --- | 1542,367 | 105,570 | 27,151 | 68,915 | 483,8280 | 26,224 | 79,570 |
| |  | | --- | | 58 | | --- | 1358,066 | 66,354 | 137,710 | 22,997 | 313,7967 | 18,673 | 50,964 |
| |  | | --- | | 59 | | --- | 650,186 | 207,645 | 264,656 | 167,582 | 124,7836 | 170,477 | 144,926 |
| |  | | --- | | 60 | | --- | 1346,250 | 158,681 | 94,201 | 16,256 | 341,3657 | 10,013 | 18,686 |
| |  | | --- | | 61 | | --- | 1458,014 | 90,041 | 50,557 | 35,029 | 417,6393 | 9,380 | 45,341 |
| |  | | --- | | 62 | | --- | 1340,238 | 106,110 | 94,533 | 7,955 | 330,3741 | 1,750 | 16,439 |
| |  | | --- | | 63 | | G\_6:6 | 1330,196 | 72,524 | 86,879 | 15,476 | 327,5645 | 2,659 | 33,768 |
| |  | | --- | | 64 | | G\_2:2 | 1171,625 | 4,967 | 183,108 | 158,605 | 329,5898 | 127,782 | 194,829 |
| |  | | --- | | 65 | | --- | 1463,750 | 95,248 | 48,533 | 30,155 | 417,7709 | 6,372 | 50,100 |
| |  | | --- | | 66 | | --- | 1587,093 | 268,245 | 197,850 | 53,075 | 476,6212 | 83,353 | 93,767 |
| |  | | --- | | 67 | | --- | 1299,872 | 94,120 | 118,221 | 4,636 | 296,2492 | 4,323 | 18,756 |
| |  | | --- | | 68 | | --- | 1791,282 | 170,442 | 136,871 | 69,469 | 535,7985 | 52,062 | 114,758 |
| |  | | --- | | 69 | | G\_7:7 | 1293,336 | 154,312 | 162,092 | 15,097 | 308,5270 | 26,806 | 7,396 |
| |  | | --- | | 70 | | --- | 1554,992 | 145,002 | 104,458 | 55,154 | 429,5667 | 30,002 | 66,660 |
| |  | | --- | | 71 | | --- | 1404,437 | 176,276 | 110,618 | 95,417 | 459,5136 | 78,263 | 76,271 |
| |  | | --- | | 72 | | --- | 1237,115 | 193,427 | 186,964 | 22,670 | 288,2291 | 43,493 | 10,939 |
| |  | | --- | | 73 | | --- | 1003,643 | 33,378 | 259,406 | 134,458 | 209,0961 | 123,462 | 151,519 |
| |  | | --- | | 74 | | --- | 1337,372 | 154,917 | 174,723 | 21,884 | 298,5920 | 24,601 | 23,973 |
| |  | | --- | | 75 | | --- | 1137,184 | 114,285 | 165,078 | 38,873 | 235,7504 | 38,440 | 19,629 |
| |  | | --- | | 76 | | G\_4:4 | 1343,499 | 96,530 | 122,357 | 4,986 | 320,5597 | 11,751 | 34,246 |
| |  | | --- | | 77 | | G\_6:6 | 1415,038 | 96,699 | 88,123 | 13,208 | 364,1641 | 0,730 | 27,488 |
| |  | | --- | | 78 | | --- | 1061,938 | 122,821 | 254,789 | 34,084 | 165,1258 | 59,140 | 44,491 |
| |  | | --- | | 79 | | --- | 226,361 | 568,719 | 806,031 | 551,206 | 69,7781 | 605,589 | 549,535 |
| |  | | --- | | 80 | | G\_6:6 | 1369,673 | 116,156 | 103,476 | 7,504 | 333,5319 | 2,118 | 18,920 |
| |  | | --- | | 81 | | G\_3:3 | 1648,879 | 148,838 | 3,128 | 161,774 | 621,2486 | 101,465 | 206,045 |
| |  | | --- | | 82 | | --- | 1373,893 | 132,662 | 132,996 | 21,468 | 358,7395 | 25,507 | 21,690 |
| |  | | --- | | 83 | | G\_1:1 | 7,139 | 1259,581 | 1646,775 | 1291,739 | 401,1873 | 1386,527 | 1274,972 |
| |  | | --- | | 84 | | --- | 993,914 | 206,980 | 292,942 | 111,178 | 161,9820 | 125,582 | 119,150 |
| |  | | --- | | 85 | | --- | 1263,498 | 142,187 | 217,592 | 18,552 | 250,4841 | 36,343 | 29,659 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Case | Posterior Probabilities (Данные.sta) Incorrect classifications are marked with \* | | | | | | | |
| |  | | --- | | Observed Classif. | | |  | | --- | | G\_1:1 p=,06667 | | |  | | --- | | G\_2:2 p=,06667 | | |  | | --- | | G\_3:3 p=,06667 | | |  | | --- | | G\_4:4 p=,26667 | | |  | | --- | | G\_5:5 p=,06667 | | |  | | --- | | G\_6:6 p=,30000 | | |  | | --- | | G\_7:7 p=,16667 | |
| |  | | --- | | 1 | | --- | 0,000000 | 0,000000 | 0,000101 | 0,000071 | 0,000000 | 0,999827 | 0,000000 |
| |  | | --- | | 2 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000312 | 0,000000 | 0,000000 | 0,999688 |
| |  | | --- | | 3 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,994933 | 0,000000 | 0,000000 | 0,005067 |
| |  | | --- | | 4 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,000107 | 0,000000 | 0,999893 | 0,000000 |
| |  | | --- | | 5 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000354 | 0,000000 | 0,972662 | 0,026983 |
| |  | | --- | | 6 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,090251 | 0,000000 | 0,909692 | 0,000057 |
| |  | | --- | | 7 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,996245 | 0,000000 | 0,002878 | 0,000877 |
| |  | | --- | | 8 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,000058 | 0,000000 | 0,999942 | 0,000000 |
| |  | | --- | | 9 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,999989 | 0,000000 | 0,000011 | 0,000000 |
| |  | | --- | | 10 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000057 | 0,000000 | 0,999942 | 0,000001 |
| |  | | --- | | 11 | | G\_2:2 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 12 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,999521 | 0,000000 | 0,000006 | 0,000473 |
| |  | | --- | | 13 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 |
| |  | | --- | | \* 14 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,919976 | 0,000000 | 0,079417 | 0,000606 |
| |  | | --- | | \* 15 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,377610 | 0,000000 | 0,622027 | 0,000363 |
| |  | | --- | | 16 | | G\_3:3 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 17 | | --- | 0,000000 | 0,000000 | 0,000355 | 0,001631 | 0,000000 | 0,998014 | 0,000000 |
| |  | | --- | | 18 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,873939 | 0,000000 | 0,126061 | 0,000000 |
| |  | | --- | | 19 | | G\_5:5 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 20 | | --- | 0,000000 | 0,000000 | 0,004128 | 0,000000 | 0,000000 | 0,995872 | 0,000000 |
| |  | | --- | | 21 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,001552 | 0,000000 | 0,000005 | 0,998443 |
| |  | | --- | | 22 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,993040 | 0,000000 | 0,006959 | 0,000001 |
| |  | | --- | | 23 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,998363 | 0,000000 | 0,001178 | 0,000459 |
| |  | | --- | | 24 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,000694 | 0,000000 | 0,999306 | 0,000000 |
| |  | | --- | | 25 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,011917 | 0,000000 | 0,988083 | 0,000000 |
| |  | | --- | | 26 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,000002 | 0,000000 | 0,000001 | 0,999997 |
| |  | | --- | | 27 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,013095 | 0,000000 | 0,975146 | 0,011759 |
| |  | | --- | | 28 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,999926 | 0,000000 | 0,000004 | 0,000070 |
| |  | | --- | | 29 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,018165 | 0,000000 | 0,095349 | 0,886486 |
| |  | | --- | | 30 | | G\_5:5 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 31 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,994858 | 0,000000 | 0,005142 | 0,000000 |
| |  | | --- | | 32 | | --- | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 33 | | G\_1:1 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 34 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,259577 | 0,000000 | 0,740415 | 0,000008 |
| |  | | --- | | 35 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,001754 | 0,000000 | 0,000000 | 0,998246 |
| |  | | --- | | 36 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000123 | 0,000000 | 0,999877 | 0,000000 |
| |  | | --- | | 37 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000263 | 0,000000 | 0,999056 | 0,000682 |
| |  | | --- | | 38 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,007673 | 0,000000 | 0,992053 | 0,000274 |
| |  | | --- | | 39 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,001935 | 0,000000 | 0,998057 | 0,000007 |
| |  | | --- | | 40 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,000001 | 0,000000 | 0,000000 | 0,999999 |
| |  | | --- | | 41 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,936780 | 0,000000 | 0,062854 | 0,000367 |
| |  | | --- | | 42 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,997941 | 0,000000 | 0,001940 | 0,000119 |
| |  | | --- | | 43 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,875701 | 0,000000 | 0,000368 | 0,123931 |
| |  | | --- | | 44 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000006 | 0,000000 | 0,999994 | 0,000000 |
| |  | | --- | | 45 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,912834 | 0,000000 | 0,086922 | 0,000245 |
| |  | | --- | | 46 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,000319 | 0,000000 | 0,000005 | 0,999676 |
| |  | | --- | | 47 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,915281 | 0,000000 | 0,055210 | 0,029510 |
| |  | | --- | | 48 | | --- | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 49 | | --- | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 50 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000080 | 0,000000 | 0,999914 | 0,000006 |
| |  | | --- | | 51 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,998708 | 0,000000 | 0,000000 | 0,001292 |
| |  | | --- | | 52 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,999994 | 0,000000 | 0,000000 | 0,000006 |
| |  | | --- | | 53 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000587 | 0,000000 | 0,999413 | 0,000000 |
| |  | | --- | | 54 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,703425 | 0,000000 | 0,295665 | 0,000910 |
| |  | | --- | | 55 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,004405 | 0,000000 | 0,995575 | 0,000020 |
| |  | | --- | | 56 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,097647 | 0,000000 | 0,902353 | 0,000000 |
| |  | | --- | | 57 | | --- | 0,000000 | 0,000000 | 0,122669 | 0,000000 | 0,000000 | 0,877331 | 0,000000 |
| |  | | --- | | 58 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,092801 | 0,000000 | 0,907199 | 0,000000 |
| |  | | --- | | 59 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,999894 | 0,000000 | 0,000106 |
| |  | | --- | | 60 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,037466 | 0,000000 | 0,955587 | 0,006948 |
| |  | | --- | | 61 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000002 | 0,000000 | 0,999998 | 0,000000 |
| |  | | --- | | 62 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,038395 | 0,000000 | 0,961260 | 0,000345 |
| |  | | --- | | 63 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,001462 | 0,000000 | 0,998538 | 0,000000 |
| |  | | --- | | 64 | | G\_2:2 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 65 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000006 | 0,000000 | 0,999994 | 0,000000 |
| |  | | --- | | 66 | | --- | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 67 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,431767 | 0,000000 | 0,568001 | 0,000232 |
| |  | | --- | | 68 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000148 | 0,000000 | 0,999852 | 0,000000 |
| |  | | --- | | 69 | | G\_7:7 | 0,000000 | 0,000000 | 0,000000 | 0,032915 | 0,000000 | 0,000106 | 0,966979 |
| |  | | --- | | 70 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000003 | 0,000000 | 0,999997 | 0,000000 |
| |  | | --- | | 71 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000067 | 0,000000 | 0,399285 | 0,600648 |
| |  | | --- | | 72 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,004516 | 0,000000 | 0,000000 | 0,995484 |
| |  | | --- | | 73 | | --- | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 74 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,662569 | 0,000000 | 0,191668 | 0,145763 |
| |  | | --- | | 75 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000106 | 0,000000 | 0,000148 | 0,999746 |
| |  | | --- | | 76 | | G\_4:4 | 0,000000 | 0,000000 | 0,000000 | 0,963191 | 0,000000 | 0,036809 | 0,000000 |
| |  | | --- | | 77 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,001732 | 0,000000 | 0,998267 | 0,000001 |
| |  | | --- | | 78 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,996571 | 0,000000 | 0,000004 | 0,003425 |
| |  | | --- | | 79 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 80 | | G\_6:6 | 0,000000 | 0,000000 | 0,000000 | 0,056741 | 0,000000 | 0,943141 | 0,000118 |
| |  | | --- | | 81 | | G\_3:3 | 0,000000 | 0,000000 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 82 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,585274 | 0,000000 | 0,087394 | 0,327332 |
| |  | | --- | | 83 | | G\_1:1 | 1,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 | 0,000000 |
| |  | | --- | | 84 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,987707 | 0,000000 | 0,000828 | 0,011465 |
| |  | | --- | | 85 | | --- | 0,000000 | 0,000000 | 0,000000 | 0,997431 | 0,000000 | 0,000154 | 0,002415 |