## Module 3 Assignment 1

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## 2023-04-03

```
## Rows: 40 Columns: 5
## -- Column specification ------
## Delimiter: ","
## dbl (5): y_1, y_2, y_3, y_4, y_5
## i Use 'spec()' to retrieve the full column specification for this data.
## i Specify the column types or set 'show_col_types = FALSE' to quiet this message.
## Rows: 40 Columns: 5
## -- Column specification ------
## Delimiter: ","
## dbl (5): j_1, j_2, j_3, j_4, j_5
## i Use 'spec()' to retrieve the full column specification for this data.
## i Specify the column types or set 'show_col_types = FALSE' to quiet this message.
 1.
## [1] 0.35
 3.
 4.
## Warning: obsCovs contains characters. Converting them to factors.
## Data frame representation of unmarkedFrame object.
    y.1 y.2 y.3 y.4 y.5 time.1 time.2 time.3 time.4 time.5
## 1
         0
           0
                0
                   0
                         1
                               2
                                    3
## 2
      0
         0
             1
                                    3
                1
                   0
                         1
                               2
## 3
         0 0
               0
                   0
                         1
                               2
                                    3
        0 0 0 0
## 4
      0
                        1
                                    3
## 5
      0
        0 0 0 0
                        1
                             2
                                   3
        0 1 0 0
0 0 0 1
                             2
## 6
      0
                        1
                                   3
                        1
## 7
      1
                             2
                                   3
        0 0 0 0
                        1
                             2
## 8
                                   3
## 9
      0
        0 0 0 0
                        1
                             2
                                   3
      1 0 0 1 1 1
## 10
                                   3
                                               5
```

5. 6. 7.

```
##
                               AIC delta AICwt cumltvWt
                      nPars
## tiger_pdot_psidot
                          2 142.94 0.00 0.969
                                                    0.97
## tiger_ptime_psidot
                          6 149.80 6.86 0.031
                                                    1.00
  9.
                p(Int)
## psi(Int)
## 0.4238748 0.2948984
              0.025
##
                        0.975
## p(Int) 0.1829776 0.4385327
 10.
## psi(Int)
               p(Int)
## 0.4238748 0.2948984
                0.025
                          0.975
## psi(Int) 0.2471549 0.6224758
 12.
## [1] 0.625
 13.
 14.
## Warning: obsCovs contains characters. Converting them to factors.
## Data frame representation of unmarkedFrame object.
      y.1 y.2 y.3 y.4 y.5 time.1 time.2 time.3 time.4 time.5
        0
            0
                    0
                                              3
                                                            5
## 1
                0
                        0
                               1
                                       2
                                                     4
## 2
        0
            0
                0
                    0
                        0
                               1
                                      2
                                              3
                                                     4
## 3
            0
                    1
                        0
                               1
                                       2
                                              3
                                                     4
                                                            5
## 4
        0
            0
              0
                    0
                        0
                               1
                                      2
                                              3
                                                     4
                                                            5
## 5
                               1
                                       2
                                              3
                                                            5
        0
            0
               0
                    0
                        0
                                                     4
## 6
        0
           1 1
                    0
                        0
                               1
                                      2
                                             3
                                                     4
                                                            5
## 7
            0 0
                        0
## 8
        0
            1 0
                        0
                                      2
                                              3
                                                            5
                  1
                               1
## 9
        0
                1
                    1
                        0
                                       2
                                              3
                                                            5
## 10
                    0
                        0
                               1
                                              3
                                                            5
 15.
 16.
                        nPars
                                 AIC delta AICwt cumltvWt
## diamond_pdot_psidot
                            2 209.51 0.00 0.964
                                                      0.96
## diamond_ptime_psidot
                            6 216.06 6.55 0.036
```

17.

```
## psi(Int) p(Int)
## 0.7813023 0.2751816
```

## 0.025 0.975 ## p(Int) 0.1895566 0.3812877

## 0.025 0.975 ## psi(Int) 0.4842553 0.9314732