TABLES STATISTIQUES: DISTRIBUTION DU χ^2

I. TROUVÉ

Les tables et graphique suivants ont été calculés à partir du logiciel gratuit Scilab, développé par l'INRIA, et disponible sur le site "http://www.scilab.org".

Représentation graphique de la densité d'un χ^2 à 20 degrés de liberté

Densite du Chi2 a 20 degres de liberte

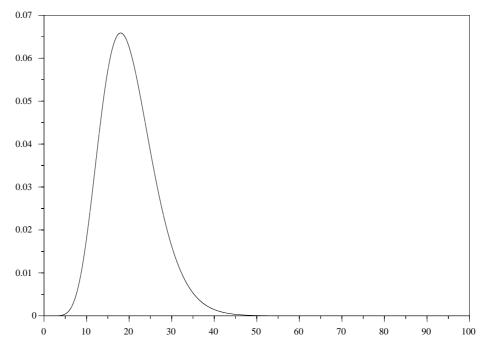


FIGURE 1. Densité de la loi du χ^2 à 20 degrés de liberté

Table de lois du χ^2

Sur la première colonne on lit le nombre de degrés de liberté. L'entête des autres colonnes donne la probabilité α qu'un χ^2 excède la valeur t lue dans le tableau sur cette colonne. Si le nombre de degrés de liberté d est supérieur à 100, on approchera $\sqrt{2\chi^2} - \sqrt{2d-1}$ par une gaussienne centrée réduite.

1

2 I. TROUVÉ

$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	α	0.975	0.95	0.9	0.8	0.2	0.1	0.05	0.025
3 0.216 0.352 0.584 1.005 4.642 6.251 7.815 9.348 4 0.484 0.711 1.064 1.649 5.989 7.779 9.488 11.143 5 0.831 1.145 1.61 2.343 7.289 9.236 11.07 12.833 6 1.237 1.635 2.204 3.07 8.558 10.645 12.592 14.449 7 1.69 2.167 2.833 3.822 9.803 12.017 14.067 16.013 8 2.18 2.733 3.49 4.594 11.03 13.362 15.507 17.535 9 2.7 3.325 4.168 5.38 12.242 14.684 16.919 19.023 10 3.247 3.94 4.865 6.179 13.442 15.987 18.307 20.483 11 3.816 4.575 5.578 6.989 14.631 17.275 19.675 21.92 12	d = 1	0.001	0.004	0.016	0.064	1.642	2.706	3.841	5.024
4 0.484 0.711 1.064 1.649 5.989 7.779 9.488 11.143 5 0.831 1.145 1.61 2.343 7.289 9.236 11.07 12.833 6 1.237 1.635 2.204 3.07 8.558 10.645 12.592 14.449 7 1.69 2.167 2.833 3.822 9.803 12.017 14.067 16.013 8 2.18 2.733 3.49 4.594 11.03 13.362 15.507 17.535 9 2.7 3.325 4.168 5.38 12.242 14.684 16.919 19.023 10 3.247 3.94 4.865 6.179 13.442 15.987 18.307 20.483 11 3.816 4.575 5.578 6.989 14.631 17.275 19.675 21.92 12 4.404 5.226 6.304 7.807 15.812 18.549 21.026 23.337 13 <th>2</th> <th>0.051</th> <th>0.103</th> <th>0.211</th> <th>0.446</th> <th>3.219</th> <th>4.605</th> <th>5.991</th> <th>7.378</th>	2	0.051	0.103	0.211	0.446	3.219	4.605	5.991	7.378
5 0.831 1.145 1.61 2.343 7.289 9.236 11.07 12.833 6 1.237 1.635 2.204 3.07 8.558 10.645 12.592 14.449 7 1.69 2.167 2.833 3.822 9.803 12.017 14.067 16.013 8 2.18 2.733 3.49 4.594 11.03 13.362 15.507 17.535 9 2.7 3.325 4.168 5.38 12.242 14.684 16.919 19.023 10 3.247 3.94 4.865 6.179 13.442 15.987 18.307 20.483 11 3.816 4.575 5.578 6.989 14.631 17.275 19.675 21.92 12 4.404 5.226 6.304 7.807 15.812 18.549 21.026 23.337 13 5.099 5.892 7.042 8.634 16.985 19.812 22.362 24.736 1	3	0.216		0.584	1.005	4.642	6.251	7.815	9.348
6 1.237 1.635 2.204 3.07 8.558 10.645 12.592 14.449 7 1.69 2.167 2.833 3.822 9.803 12.017 14.067 16.013 8 2.18 2.733 3.49 4.594 11.03 13.362 15.507 17.535 9 2.7 3.325 4.168 5.38 12.242 14.684 16.919 19.023 10 3.247 3.94 4.865 6.179 13.442 15.987 18.307 20.483 11 3.816 4.575 5.578 6.989 14.631 17.275 19.675 21.92 12 4.404 5.226 6.304 7.807 15.812 18.549 21.026 23.337 13 5.009 5.892 7.042 8.634 16.985 19.812 22.362 24.736 14 5.629 6.571 7.79 9.467 18.151 21.064 23.685 26.119 15 6.262 7.261 8.547 10.307 19.311 22.307 24.9	4	0.484	0.711	1.064	1.649	5.989	7.779	9.488	11.143
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60 40.482 43.188 46.459 50.641 68.972 74.397 79.082 83.298									
33 13.102 13.103 13.133 33.011 30.012 11.001 10.002 30.200	00	10.102	10.100	10.100	00.011	00.012	1 1.001	10.002	00.200
70 48.758 51.739 55.329 59.898 79.715 85.527 90.531 95.023	70	48.758	51.739	55.329	59.898	79.715	85.527	90.531	95.023
80 57.153 60.391 64.278 69.207 90.405 96.578 101.879 106.629									
90 65.647 69.126 73.291 78.558 101.054 107.565 113.145 118.136									
100 74.222 77.929 82.358 87.945 111.667 118.498 124.342 129.561									