



$$\alpha = F(T < -T_{\alpha}) = P(T < -T_{\alpha}) = P(T > T_{\alpha})$$

	Valores de la probabilidad α área derecha de la distribución t-student (para los cuantiles se cambia el														
<i>gl</i> =n	0.0005	0.0010	0.0015	0.0020	0.0025	0.0030	0.0035	0.0040	0.0045	0.0050	0.0055	0.0060	0.0065	0.0070	0.0075
1	636.58	318.29	212.19	159.14	127.32	106.10	90.944	79.572	70.729	63.656	57.868	53.046	48.964	45.465	42.433
2	31.600	22.328	18.217	15.764	14.089	12.852	11.889	11.113	10.470	9.925	9.456	9.046	8.685	8.363	8.073
3	12.924	10.214	8.891	8.052	7.453	6.994	6.627	6.322	6.064	5.841	5.645	5.472	5.316	5.175	5.047
4	8.610	7.173	6.435	5.951	5.598	5.321	5.096	4.908	4.746	4.604	4.479	4.367	4.265	4.173	4.088
5	6.869	5.894	5.376	5.030	4.773	4.570	4.403	4.262	4.140	4.032	3.936	3.850	3.772	3.700	3.634
6	5.959	5.208	4.800	4.524	4.317	4.152	4.015	3.898	3.797	3.707	3.627	3.555	3.489	3.428	3.372
7	5.408	4.785	4.442	4.207	4.029	3.887	3.768	3.667	3.578	3.499	3.429	3.365	3.307	3.253	3.203
8	5.041	4.501	4.199	3.991	3.833	3.705	3.598	3.507	3.427	3.355	3.291	3.233	3.180	3.131	3.085
9	4.781	4.297	4.024	3.835	3.690	3.573	3.474	3.390	3.316	3.250	3.190	3.136	3.087	3.041	2.998
10	4.587	4.144	3.892	3.716	3.581	3.472	3.380	3.301	3.231	3.169	3.113	3.062	3.015	2.972	2.932
11	4.437	4.025	3.789	3.624	3.497	3.393	3.306	3.231	3.165	3.106	3.052	3.004	2.959	2.917	2.879
12	4.318	3.930	3.707	3.550	3.428	3.330	3.247	3.175	3.111	3.055	3.003	2.956	2.913	2.873	2.836
13	4.221	3.852	3.639	3.489	3.372	3.278	3.198	3.128	3.067	3.012	2.963	2.917	2.876	2.837	2.801
14	4.140	3.787	3.583	3.438	3.326	3.234	3.157	3.089	3.030	2.977	2.929	2.885	2.844	2.807	2.771
15	4.073	3.733	3.535	3.395	3.286	3.197	3.122	3.056	2.998	2.947	2.900	2.857	2.817	2.780	2.746
16	4.015	3.686	3.494	3.358	3.252	3.165	3.092	3.028	2.971	2.921	2.875	2.833	2.794	2.758	2.724
17	3.965	3.646	3.459	3.326	3.222	3.138	3.066	3.003	2.948	2.898	2.853	2.812	2.774	2.739	2.706
18	3.922	3.610	3.428	3.298	3.197	3.113	3.043	2.982	2.927	2.878	2.834	2.794	2.756	2.721	2.689
19	3.883	3.579	3.401	3.273	3.174	3.092	3.023	2.962	2.909	2.861	2.817	2.777	2.740	2.706	2.674
20	3.850	3.552	3.376	3.251	3.153	3.073	3.005	2.945	2.893	2.845	2.802	2.763	2.727	2.693	2.661
21	3.819	3.527	3.355	3.231	3.135	3.056	2.989	2.930	2.878	2.831	2.789	2.750	2.714	2.681	2.649
22	3.792	3.505	3.335	3.214	3.119	3.041	2.974	2.916	2.865	2.819	2.777	2.738	2.703	2.670	2.639
23	3.768	3.485	3.318	3.198	3.104	3.027	2.961	2.904	2.853	2.807	2.766	2.728	2.692	2.660	2.629
24	3.745	3.467	3.302	3.183	3.091	3.014	2.949	2.892	2.842	2.797	2.756	2.718	2.683	2.651	2.620
25	3.725	3.450	3.287	3.170	3.078	3.003	2.938	2.882	2.832	2.787	2.747	2.709	2.675	2.642	2.612
26	3.707	3.435	3.274	3.158	3.067	2.992	2.928	2.873	2.823	2.779	2.738	2.701	2.667	2.635	2.605
27	3.689	3.421	3.261	3.146	3.057	2.982	2.919	2.864	2.815	2.771	2.731	2.694	2.660	2.628	2.598
28	3.674	3.408	3.250	3.136	3.047	2.973	2.911	2.856	2.807	2.763	2.723	2.687	2.653	2.621	2.592
29	3.660	3.396	3.239	3.127	3.038	2.965	2.903	2.848	2.800	2.756	2.717	2.680	2.647	2.615	2.586
30	3.646	3.385	3.230	3.118	3.030	2.957	2.895	2.841	2.793	2.750	2.711	2.674	2.641	2.610	2.581
40	3.551	3.307	3.160	3.055	2.971	2.902	2.843	2.792	2.746	2.704	2.667	2.632	2.600	2.570	2.542
50	3.496	3.261	3.120	3.018	2.937	2.870	2.813	2.763	2.718	2.678	2.641	2.607	2.576	2.547	2.519
60	3.460	3.232	3.094	2.994	2.915	2.849	2.793	2.744	2.700	2.660	2.624	2.591	2.560	2.531	2.504
70	3.435	3.211	3.075	2.977	2.899	2.834	2.779	2.730	2.687	2.648	2.612	2.579	2.549	2.521	2.494
80	3.416	3.195	3.061	2.964	2.887	2.823	2.768	2.720	2.677	2.639	2.603	2.571	2.541	2.512	2.486
90	3.402	3.183	3.051	2.954	2.878	2.815	2.760	2.713	2.670	2.632	2.596	2.564	2.534	2.506	2.480
100	3.390	3.174	3.042	2.946	2.871	2.808	2.754	2.706	2.664	2.626	2.591	2.559	2.529	2.501	2.475
inf.	3.290	3.090	2.968	2.878	2.807	2.748	2.697	2.652	2.612	2.576	2.543	2.512	2.484	2.457	2.432

Probabilidad y Estadística

Aplicaciones a la ingeniería y ciencias Eduardo Gutiérrez González
Olga Vladimirovna Panteleeva



	Valores de la probabilidad $lpha$ área derecha de la distribución t-student (para los cuantiles se cambia el signo														signo)
<i>gl</i> =n	0.0080	0.0085	0.0090	0.0095	0.010	0.015	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055	0.060
1	39.780	37.439	35.359	33.496	31.821	21.205	15.894	12.706	10.579	9.058	7.916	7.026	6.314	5.730	5.242
2	7.810	7.572	7.353	7.151	6.965	5.643	4.849	4.303	3.896	3.578	3.320	3.104	2.920	2.760	2.620
3	4.930	4.821	4.721	4.628	4.541	3.896	3.482	3.182	2.951	2.763	2.605	2.471	2.353	2.249	2.156
4	4.010	3.937	3.870	3.806	3.747	3.298	2.999	2.776	2.601	2.456	2.333	2.226	2.132	2.048	1.971
5	3.573	3.516	3.462	3.412	3.365	3.003	2.757	2.571	2.422	2.297	2.191	2.098	2.015	1.941	1.873
6	3.320	3.272	3.226	3.183	3.143	2.829	2.612	2.447	2.313	2.201	2.104	2.019	1.943	1.874	1.812
7	3.157	3.113	3.073	3.034	2.998	2.715	2.517	2.365	2.241	2.136	2.046	1.966	1.895	1.830	1.770
8	3.043	3.003	2.965	2.930	2.896	2.634	2.449	2.306	2.189	2.090	2.004	1.928	1.860	1.797	1.740
9	2.958	2.921	2.886	2.853	2.821	2.574	2.398	2.262	2.150	2.055	1.973	1.899	1.833	1.773	1.718
10	2.894	2.859	2.825	2.794	2.764	2.527	2.359	2.228	2.120	2.028	1.948	1.877	1.812	1.754	1.700
11	2.843	2.809	2.777	2.747	2.718	2.491	2.328	2.201	2.096	2.007	1.928	1.859	1.796	1.738	1.686
12	2.801	2.769	2.738	2.709	2.681	2.461	2.303	2.179	2.076	1.989	1.912	1.844	1.782	1.726	1.674
13	2.767	2.736	2.706	2.677	2.650	2.436	2.282	2.160	2.060	1.974	1.899	1.832	1.771	1.715	1.664
14	2.739	2.708	2.678	2.651	2.624	2.415	2.264	2.145	2.046	1.962	1.887	1.821	1.761	1.706	1.656
15	2.714	2.684	2.655	2.628	2.602	2.397	2.249	2.131	2.034	1.951	1.878	1.812	1.753	1.699	1.649
		_,,,,		(D)									1		
16	2.693	2.663	2.635	2.609	2.583	2.382	2.235	2.120	2.024	1.942	1.869	1.805	1.746	1.692	1.642
17	2.675	2.645	2.618	2.592	2.567	2.368	2.224	2.110	2.015	1.934	1.862	1.798	1.740	1.686	1.637
18	2.658	2.630	2.603	2.577	2.552	2.356	2.214	2.101	2.007	1.926	1.855	1.792	1.734	1.681	1.632
19	2.644	2.616	2.589	2.564	2.539	2.346	2.205	2.093	2.000	1.920	1.850	1.786	1.729	1.677	1.628
20	2.631	2.603	2.577	2.552	2.528	2.336	2.197	2.086	1.994	1.914	1.844	1.782	1.725	1.672	1.624
21	2.620	2.592	2.566	2.541	2.518	2.328	2.189	2.080	1.988	1.909	1.840	1.777	1.721	1.669	1.621
22	2.610	2.582	2.556	2.532	2.508	2.320	2.183	2.074	1.983	1.905	1.835	1.773	1.717	1.665	1.618
23	2.600	2.573	2.547	2.523	2.500	2.313	2.177	2.069	1.978	1.900	1.832	1.770	1.714	1.662	1.615
24	2.592	2.565	2.539	2.515	2.492	2.307	2.172	2.064	1.974	1.896	1.828	1.767	1.711	1.660	1.612
25	2.584	2.557	2.532	2.508	2.485	2.301	2.167	2.060	1.970	1.893	1.825	1.764	1.708	1.657	1.610
					2))	· ·									
26	2.577	2.550	2.525	2.501	2.479	2.296	2.162	2.056	1.967	1.890	1.822	1.761	1.706	1.655	1.608
27	2.570	2.544	2.519	2.495	2.473	2.291	2.158	2.052	1.963	1.887	1.819	1.758	1.703	1.653	1.606
28	2.564	2.538	2.513	2.490	2.467	2.286	2.154	2.048	1.960	1.884	1.817	1.756	1.701	1.651	1.604
29	2.558	2.532	2.508	2.484	2.462	2.282	2.150	2.045	1.957	1.881	1.814	1.754	1.699	1.649	1.602
30	2.553	2.527	2.503	2.479	2.457	2.278	2.147	2.042	1.955	1.879	1.812	1.752	1.697	1.647	1.600
40	2.516	2.491	2.467	2.445	2.423	2.250	2.123	2.021	1.936	1.862	1.796	1.737	1.684	1.635	1.589
50	2.494	2.469	2.446	2.424	2.403	2.234	2.109	2.009	1.924	1.852	1.787	1.729	1.676	1.627	1.582
60	2.479	2.455	2.432	2.411	2.390	2.223	2.099	2.000	1.917	1.845	1.781	1.723	1.671	1.622	1.577
70	2.469	2.445	2.423	2.401	2.381	2.215	2.093	1.994	1.912	1.840	1.776	1.719	1.667	1.619	1.574
80	2.461	2.438	2.415	2.394	2.374	2.209	2.088	1.990	1.908	1.836	1.773	1.716	1.664	1.616	1.572
90	2.455	2.432	2.410	2.389	2.368	2.205	2.084	1.987	1.905	1.834	1.771	1.714	1.662	1.614	1.570
100	2.451	2.427	2.405	2.384	2.364	2.201	2.081	1.984	1.902	1.832	1.769	1.712	1.660	1.613	1.568
inf.	2.409	2.387	2.366	2.346	2.326	2.170	2.054	1.960	1.881	1.812	1.751	1.695	1.645	1.598	1.555
1111.	4.409	4.381	2.300	2.340	2.320	2.1/0	2.034	1.900	1.001	1.012	1./31	1.093	1.043	1.398	1.333

Probabilidad y Estadística

Aplicaciones a la ingeniería y ciencias Eduardo Gutiérrez González

Olga Vladimirovna Panteleeva



	Valores de la probabilidad α área derecha (para los cuantiles se cambia el signo)														
gl=v	0.065	0.070	0.075	0.080	0.085	0.090	0.095	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45
1	4.8288	4.4737	4.1653	3.8947	3.6554	3.4420	3.2506	3.0777	1.9626	1.3764	1.0000	0.7265	0.5095	0.3249	0.1584
2	2.4954	2.3834	2.2819	2.1894	2.1045	2.0261	1.9534	1.8856	1.3862	1.0607	0.8165	0.6172	0.4447	0.2887	0.1421
3	2.0719	1.9950	1.9243	1.8589	1.7981	1.7413	1.6880	1.6377	1.2498	0.9785	0.7649	0.5844	0.4242	0.2767	0.1366
4	1.9016	1.8375	1.7782	1.7229	1.6712	1.6226	1.5767	1.5332	1.1896	0.9410	0.7407	0.5686	0.4142	0.2707	0.1338
5	1.8104	1.7529	1.6994	1.6493	1.6023	1.5579	1.5158	1.4759	1.1558	0.9195	0.7267	0.5594	0.4082	0.2672	0.1322
6	1.7538	1.7002	1.6502	1.6033	1.5590	1.5172	1.4775	1.4398	1.1342	0.9057	0.7176	0.5534	0.4043	0.2648	0.1311
7	1.7153	1.6643	1.6166	1.5718	1.5295	1.4894	1.4513	1.4149	1.1192	0.8960	0.7111	0.5491	0.4015	0.2632	0.1303
8	1.6874	1.6383	1.5922	1.5489	1.5079	1.4691	1.4321	1.3968	1.1081	0.8889	0.7064	0.5459	0.3995	0.2619	0.1297
9	1.6663	1.6185	1.5737	1.5315	1.4916	1.4537	1.4175	1.3830	1.0997	0.8834	0.7027	0.5435	0.3979	0.2610	0.1293
10	1.6498	1.6031	1.5592	1.5179	1.4788	1.4416	1.4061	1.3722	1.0931	0.8791	0.6998	0.5415	0.3966	0.2602	0.1289
					. ('(7//		>	
11	1.6365	1.5906	1.5476	1.5069	1.4684	1.4318	1.3969	1.3634	1.0877	0.8755	0.6974	0.5399	0.3956	0.2596	0.1286
12	1.6256	1.5804	1.5380	1.4979	1.4599	1.4237	1.3892	1.3562	1.0832	0.8726	0.6955	0.5386	0.3947	0.2590	0.1283
13	1.6164	1.5718	1.5299	1.4903	1.4528	1.4170	1.3829	1.3502	1.0795	0.8702	0.6938	0.5375	0.3940	0.2586	0.1281
14	1.6087	1.5646	1.5231	1.4839	1.4467	1.4113	1.3774	1.3450	1.0763	0.8681	0.6924	0.5366	0.3933	0.2582	0.1280
15	1.6020	1.5583	1.5172	1.4784	1.4415	1.4063	1.3728	1.3406	1.0735	0.8662	0.6912	0.5357	0.3928	0.2579	0.1278
				VU)											
16	1.5962	1.5529	1.5121	1.4736	1.4369	1.4021	1.3687	1.3368	1.0711	0.8647	0.6901	0.5350	0.3923	0.2576	0.1277
17	1.5911	1.5482	1.5077	1.4694	1.4330	1.3983	1.3652	1.3334	1.0690	0.8633	0.6892	0.5344	0.3919	0.2573	0.1276
18	1.5867	1.5439	1.5037	1.4656	1.4295	1.3950	1.3620	1.3304	1.0672	0.8620	0.6884	0.5338	0.3915	0.2571	0.1274
19	1.5827	1.5402	1.5002	1.4623	1.4263	1.3920	1.3592	1.3277	1.0655	0.8610	0.6876	0.5333	0.3912	0.2569	0.1274
20	1.5791	1.5369	1.4970	1.4593	1.4235	1.3894	1.3567	1.3253	1.0640	0.8600	0.6870	0.5329	0.3909	0.2567	0.1273
															7
21	1.5759	1.5338	1.4942	1.4567	1.4210	1.3870	1.3544	1.3232	1.0627	0.8591	0.6864	0.5325	0.3906	0.2566	0.1272
22	1.5730	1.5311	1.4916	1.4542	1.4187	1.3848	1.3524	1.3212	1.0614	0.8583	0.6858	0.5321	0.3904	0.2564	0.1271
23	1.5703	1.5286	1.4893	1.4520	1.4166	1.3828	1.3505	1.3195	1.0603	0.8575	0.6853	0.5317	0.3902	0.2563	0.1271
24	1.5679	1.5263	1.4871	1.4500	1.4147	1.3810	1.3488	1.3178	1.0593	0.8569	0.6848	0.5314	0.3900	0.2562	0.1270
25	1.5657	1.5242	1.4852	1.4482	1.4130	1.3794	1.3472	1.3163	1.0584	0.8562	0.6844	0.5312	0.3898	0.2561	0.1269
26	1.5636	1.5223	1.4834	1.4464	1.4113	1.3778	1.3458	1.3150	1.0575	0.8557	0.6840	0.5309	0.3896	0.2560	0.1269
27	1.5617	1.5205	1.4817	1.4449	1.4098	1.3764	1.3444	1.3137	1.0567	0.8551	0.6837	0.5306	0.3894	0.2559	0.1268
28	1.5600	1.5189	1.4801	1.4434			\bigcirc			0.8546		1) 1	0.3893	0.2558	0.1268
29	1.5583	1.5174	1.4787	1.4421	1.4072	1.3731		1.3114	1 1 1	0.8542	0.6830	0.5304	0.3892	0.2557	0.1268
30	1.5568	1.5159	1.4774	1.4408	1.4060	1.3728	1.3410	1.3114	1.0547	0.8538	0.6828	0.5302	0.3890	0.2556	0.1267
-50	1.5500	1.3137	1.7//7	1.4400	1.4000	1.5720	1.5410	1.5104	1.0347	0.0550	0.0626	0.5500	0.3670	0.2330	0.1207
40	1.5459	1.5057	1.4677	1.4317	1.3974	1.3646	1.3332	1.3031	1.0500	0.8507	0.6807	0.5286	0.3881	0.2550	0.1265
50	1.5394	1.4996	1.4620	1.4263	1.3923	1.3598	1.3286	1.2987	1.0473	0.8489	0.6794	0.5278	0.3875	0.2547	0.1263
60	1.5352	1.4956	1.4582	1.4227	1.3889	1.3566	1.3256	1.2958	1.0455	0.8477	0.6786	0.5272	0.3872	0.2545	0.1262
70	1.5321	1.4927	1.4555	1.4202	1.3865	1.3543	1.3234	1.2938	1.0442	0.8468	0.6780	0.5268	0.3869	0.2543	0.1261
80	1.5298	1.4906	1.4535	1.4183	1.3847	1.3526	1.3218	1.2922	1.0432	0.8461	0.6776	0.5265	0.3867	0.2542	0.1261
90	1.5281	1.4889	1.4519	1.4168	1.3833	1.3513	1.3205	1.2910	1.0424	0.8456	0.6772	0.5263	0.3866	0.2541	0.1260
100	1.5267	1.4876	1.4507	1.4156	1.3822	1.3502	1.3195	1.2901	1.0418	0.8452	0.6770	0.5261	0.3864	0.2540	0.1260
inf.	1.5141	1.4758	1.4395	1.4051	1.3722	1.3408	1.3106	1.2816	1.0364	0.8416	0.6745	0.5244	0.3853	0.2533	0.1257