

ESTUDIO PARA LA REGULACIÓN Y GESTIÓN
DE LOS RECURSOS HÍDRICOS
SUBTERRÁNEOS DEL SISTEMA ACUÍFERO
"MEDIODÍA" (ALICANTE)

1ª FASE
DETERMINACIÓN DEL RÉGIMEN
HIPERANUAL DE DESCARGA

TOMO IV/IV

ANEXO III: DECONVOLUCIÓN ENTRADAS/SALIDAS

Empresa consultora: INVESTIGACIÓN Y DESARROLLO DE
RECURSOS NATURALES, S.A. (IDRENA)

Octubre de 1989

31933

CÁLCULO DE LA DECONVOLUCIÓN

ENTRADAS : INF (THORDOS, 25/90 mm)
SALIDAS : NATURALES TOTALES ESTI-
MADAS
PERIODO DE CALIBRADO : 1974/75 - 1982/83
MEMORIA DEL SISTEMA : 32 PASOS DE TIEMPO (160
DÍAS) CON AGOTAMIENTO
EXPONENCIAL (C=0,990).

DECONVOLUCION SALIDAS NATURALES TOTALES SA MEDIODIA/INF FONTILLES: RMIN=25, RMAX= 90, PDT=5 DIAS, IGNORANDO Q>1,5, 1962/63-1987/88

PARAMETROS DEL CALCULO

imax= 32, butee= 2 (1=no, 2=sí, 3=proporcional), lis= 1 (idem), pmin= 0.00000E+00, fnul=-0.10000E+01
 jmin= 878, jmax=1534, maxpf=1900 (para los datos), jmic, jmac, maxpc= 878, 1534, 1534 (para los cálculos)
 indic= 2 (de 1 a 12 según orden de pasada y de salida deseada), ijin= 1 (0=entrada inicial nula, 1 en caso contrario)
 i8resl (cálculos anteriores)= 1 i8rese (nuevos)= 9 i8seq= 1 (0=escritura superpuesta, 1 en secuencia), i8done= 7 kdeb= 1, kfin= 6
 k1...k5= 6 2 3 4 5, número de lisados al final del cálculo= 0, lisado en la última fase= 1 (1=no, 2=sí, 3=stop)
 listo= 1 (1=un lisado, 2=continuo), intervalo de reconvolucion al final del cálculo: de 33 a 1900
 último trazado de 1 a 1, con encuadre de 0.000E+00 a 0.200E+04
 cola exponencial de la función phi 0 (0=sí, 1500=no), longitud dibujada: 32
 coeficiente de agotamiento: 0.990E+00, suma de las entradas anteriores a 1 con agotamiento= 0.000E+00, ipon= 0, ipic= 0

el fichero de datos (S y E) es leído en if8= 7

CUADRO S (salida)

452.04492	468.48209	374.69614	371.30267	-1.00000	-1.00000	987.08850	677.92371	648.52637	656.48956
666.20587	643.06482	596.37653	622.91986	614.21973	581.23920	588.91888	596.35156	598.83075	604.29291
586.44464	555.27936	522.03285	476.00311	426.52197	398.17627	426.26190	430.20938	418.48828	393.81512
399.38422	489.86298	-1.00000	909.61200	853.95917	771.86230	744.35388	649.55042	667.48505	725.72949
801.67126	838.16925	756.84753	715.28436	600.45477	547.59564	561.94299	603.54486	636.58447	607.02081
579.00598	552.04248	526.37897	502.50430	478.94434	457.65985	437.17740	417.25986	399.35971	382.26556
366.21875	349.79483	337.03058	323.66272	311.12186	352.49374	371.95395	370.99542	368.12579	365.25952
362.15759	359.53619	356.91748	354.30185	351.92661	349.31674	346.71039	344.10748	407.97940	427.21283
424.29175	418.46893	409.51208	394.78198	415.82080	415.56732	673.15967	-1.00000	-1.00000	-1.00000
-1.00000	-1.00000	-1.00000	-1.00000	-1.00000	1229.55151	1059.22778	765.17334	761.54944	777.85706
758.88800	809.43689	805.55408	759.85876	724.20947	-1.00000	663.96356	695.69641	551.09314	564.60291
664.98395	653.27637	692.38123	702.11395	683.40277	-1.00000	-1.00000	-1.00000	-1.00000	-1.00000
1435.85559	789.13562	577.02551	594.38428	557.50830	530.32629	488.03198	509.39883	520.96783	522.92706
512.33978	500.04517	487.76898	475.51276	464.01108	452.77411	442.04541	431.58057	421.38004	411.44385
401.53238	394.29230	391.40125	386.58844	380.82181	376.02454	371.23505	366.21478	361.44269	356.91797
352.16409	347.89496	343.39835	339.38422	330.22708	314.84619	317.17419	348.68890	376.76471	385.39062
360.04010	351.89047	406.36566	391.40350	379.62253	-1.00000	-1.00000	-1.00000	1296.33508	1040.33167
910.90625	855.51233	829.10950	821.86163	769.34546	658.04724	527.93799	523.68054	531.07257	548.67969
546.87488	510.39105	498.32733	488.51520	534.28430	557.74188	669.73389	506.43854	556.54730	656.05908
709.68848	662.71979	-1.00000	-1.00000	1035.57922	718.01190	771.35376	724.10107	790.28186	763.87909

700.63422	629.88293	585.94513	591.40051	591.39618	565.40045	555.25385	541.20758	518.74023	523.68561
522.68207	531.56519	603.98914	623.42786	545.14618	477.97803	506.05151	607.54999	591.67645	596.84766
592.63135	589.40955	574.55353	528.60144	482.13519	432.07724	418.71280	421.62216	425.50543	420.65137
425.99640	479.47275	489.00018	508.18570	530.83191	479.44208	436.21201	416.77216	414.34906	417.98517
428.42041	506.19614	535.74689	527.87097	476.99487	469.65195	473.06372	466.45694	460.10083	410.99332
378.90723	377.46527	350.34576	331.38757	314.60059	296.93375	295.02237	328.87183	390.94843	404.19431
422.59967	442.05161	430.37280	403.23785	413.87540	393.34146	400.34695	396.82831	399.13928	374.66763
342.69058	328.80890	314.36066	313.23053	352.44025	315.46915	273.28638	258.45700	247.47693	237.53841
228.90759	219.75369	210.86133	203.01512	194.90738	187.84579	181.04576	174.76880	168.23030	162.73796
157.24564	152.27637	147.56863	143.12247	138.93784	162.98532	270.90961	256.76904	237.79996	237.01534
233.87683	235.44609	237.79996	240.15381	254.01543	250.35385	254.27695	264.36859	278.01068	260.18396
241.72305	1185.18335	-1.00000	-1.00000	1121.86963	600.73584	557.74597	533.78143	488.02304	446.19962
408.54703	370.06290	359.32831	386.34769	366.93134	369.79980	385.15942	375.08109	374.84985	368.17023
328.16794	294.69604	324.06781	380.10712	403.73590	387.35849	343.30316	273.77747	233.87686	209.81516
236.82317	294.27823	240.57857	193.33815	198.56894	200.39973	195.69200	198.30739	195.43047	192.29199
189.93813	187.06119	184.18425	181.04578	178.43037	175.55342	173.19958	169.53799	166.66106	162.73796
158.81487	155.41484	152.27637	148.87634	145.99940	143.12247	140.24553	137.36859	135.01472	132.66086
160.64565	177.12265	174.76881	149.13789	140.24553	148.09172	149.66096	153.58408	152.79945	152.01482
175.55342	183.39963	187.06119	181.04576	187.58426	191.76891	-1.00000	-1.00000	1012.37579	626.08777
578.50818	503.29962	461.33179	647.76135	1305.91248	-1.00000	-1.00000	-1.00000	1349.65833	1005.64563
835.06311	748.51019	715.13354	628.88757	695.47083	885.79785	852.66486	-1.00000	-1.00000	859.39502
726.84167	649.28528	594.87939	565.39581	585.22675	649.53290	613.23755	611.00873	656.52588	655.51434
657.25281	581.75232	525.14911	464.55902	413.87271	374.89069	352.87744	350.26788	333.12479	330.00385
343.64008	319.49100	285.00677	279.75739	286.37262	298.31226	298.31226	278.46524	257.13788	225.24602
205.10745	187.84579	173.98418	167.70723	168.75339	248.94290	250.09232	249.30771	248.52310	249.30771
249.30771	255.56534	267.64938	257.93854	254.01543	252.44620	280.95062	285.68207	288.35208	288.35208
288.35208	297.18634	366.47357	354.31137	357.63428	361.74158	385.38675	393.81052	395.73920	392.84619
373.25604	380.12225	433.04095	404.43646	402.49878	398.39407	404.67062	408.05585	399.36090	-1.00000
-1.00000	822.63818	640.34894	625.40363	684.91095	749.18774	699.37146	657.48926	618.19427	581.97894
547.59735	515.29749	486.05615	458.39365	433.28638	409.27036	388.51755	366.93628	348.37518	331.38971
315.29044	299.65692	286.35742	277.35596	305.63910	310.43054	296.02036	283.03278	270.91293	259.70438
246.69231	237.27689	228.64604	220.79984	213.99980	207.19975	199.61510	193.07660	187.58426	181.30730
176.33804	171.36879	166.39952	161.69180	157.24564	153.06099	149.13789	145.21480	141.03015	136.06088
133.44551	131.87625	125.07621	130.30701	137.63013	154.36868	164.56876	160.64566	153.58408	165.35336
170.84570	163.78413	156.72256	162.21487	164.56876	159.86104	190.46120	238.32303	251.66158	246.95383
248.52310	246.16922	250.87695	252.44620	270.08350	291.97308	322.72733	297.93811	259.58972	250.09232
308.82269	291.73737	276.47449	269.43280	265.65118	256.36929	248.26155	239.89226	229.43066	215.83060
216.35367	210.07671	203.53819	197.78432	190.72275	186.53812	204.06129	210.33826	207.46130	224.19986
237.53841	220.27678	203.27667	186.27655	174.50726	162.47641	151.49174	141.55322	138.67630	157.50717
-1.00000	-1.00000	-1.00000	-1.00000	1281.58044	1073.72339	772.78308	569.07733	503.28046	435.28311
389.48639	374.35236	447.33505	505.45526	510.62411	490.71378	482.86588	475.02313	454.73291	424.54028
385.91364	376.11859	512.48425	711.21240	938.34454	852.66492	721.65558	645.30243	564.42224	464.07388
452.53784	486.30084	435.75635	400.34991	360.97607	338.91306	329.50952	319.23251	309.73505	300.78842
292.17090	284.13031	276.67755	269.21808	262.19644	254.27695	246.69229	239.10764	232.30762	225.76912
219.23062	212.69209	207.19975	201.18436	195.95354	190.72275	185.75349	180.78423	176.59958	172.15341
167.70723	163.78413	160.12257	156.19946	152.79945	149.66096	146.26094			

0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	26.67000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
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0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

norma inicial de la aproximación del residuo, en l-2 y en el infinito: 0.135E+09 0.255E+06

PRINCIPIO DE CALCULO EN LA FASE 1
a = 0.1265E+01

CUADRO DE VALORES DE phi (función de transferencia o respuesta impulsional)

1.26503	1.26503	1.26503	1.26503	1.26503	1.26503	1.26503	1.26503
1.26503	1.26503	1.26503	1.26503	1.26503	1.26503	1.26503	1.26503
1.26503	1.26503	1.26503	1.26503	1.26503	1.26503	1.26503	1.26503
1.26503	1.26503	1.26503	1.26503	1.26503	1.26503	1.26503	1.26503

norma en l-2 y en el infinito del resto de S: 0.180E+08 0.735E+05
media de la salida real, id. calculada, y coeficiente de correlación en 878 -1534 : 0.411E+03 0.414E+03 0.6312

RESIDUOS (diferencias S-phi*E)

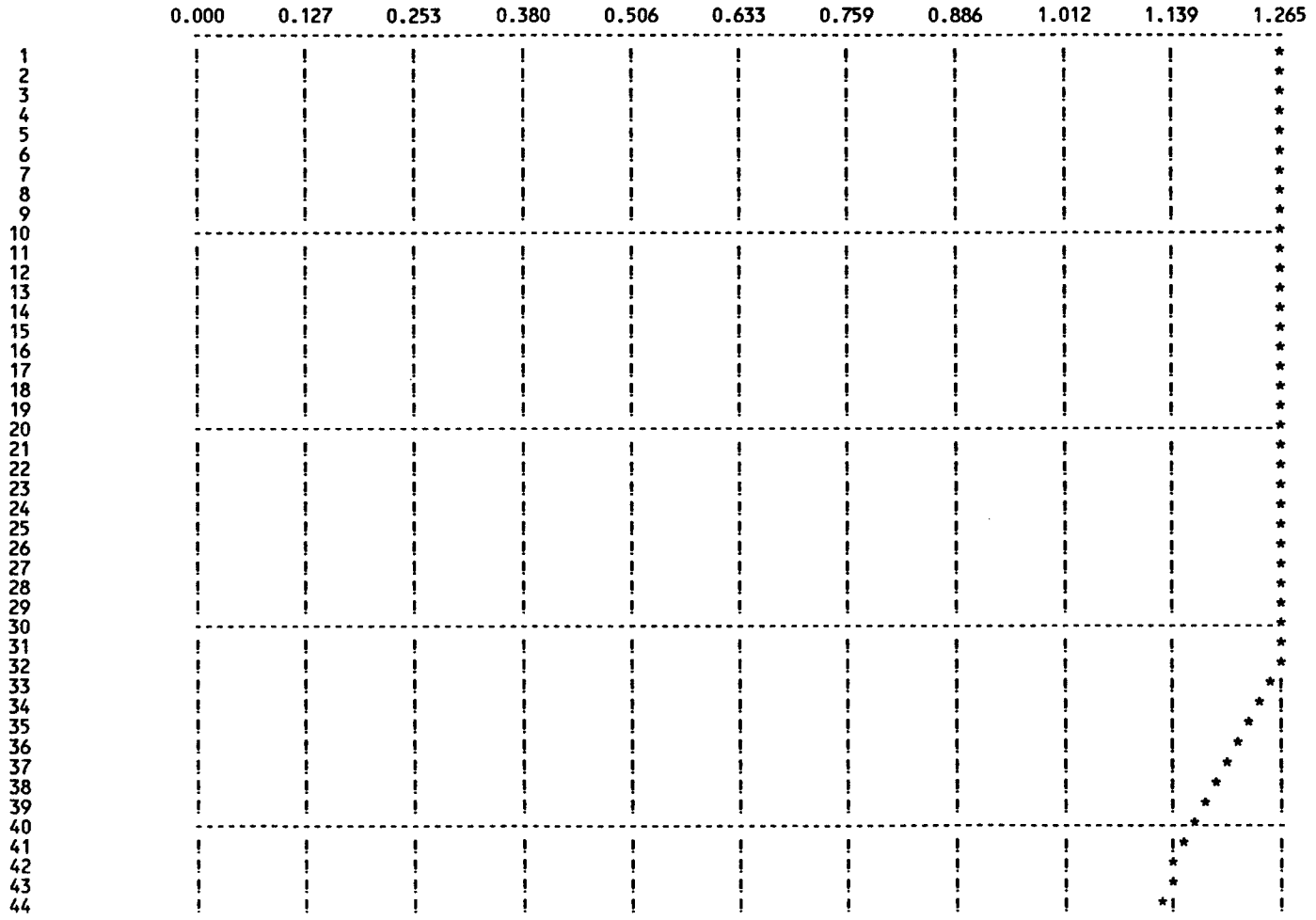
-329.67316	-305.62631	-391.67117	-387.40094	-752.11658	-788.88153	206.64301	-95.16003
-117.26935	-102.09094	-85.23157	-101.30103	-140.98840	-107.51416	-109.35272	-135.54028
-121.13556	-107.04510	-97.97467	-85.98724	-97.37543	-122.14532	-149.06085	-188.82190
-232.09753	-254.29980	-220.13220	-210.16354	-215.92365	-234.69550	-223.28406	-127.02136
-647.03522	220.32684	151.10822	74.56738	52.55945	-36.35583	-12.59186	51.42358
133.07867	175.23285	99.51074	63.49121	-50.42963	-97.85547	-78.12915	-31.20209
7.10944	-17.23499	-40.08282	-61.93097	-82.53027	-101.39139	-119.98792	-136.35864
-151.97641	-167.07797	-180.21030	-192.58429	-203.95813	-215.75583	-223.94006	-232.77374
-240.47702	-193.82675	-168.94913	-164.54443	-162.10443	-159.71417	-157.61218	-155.08167
-152.60001	-150.16629	-147.54263	-145.20358	-142.86475	-140.57190	-71.85318	-47.82144
-45.99219	-47.11215	-51.41321	-61.53406	-35.93207	-31.66803	224.04620	-538.17236
-563.07452	-602.27740	-597.98126	-593.72809	-633.49005	-629.32147	-625.19464	609.44244
443.16339	153.11322	153.45355	165.85522	150.77148	205.16681	205.09204	163.16669
131.24963	-590.26495	46.81934	82.17358	-58.84454	-41.78546	62.10937	53.88049
96.42926	109.57147	93.71698	-587.34418	-624.90912	-631.66571	-639.01141	-652.05609
789.24805	147.36755	-59.95148	-37.84955	-69.59009	-91.68793	-128.94891	-102.59915
-86.09705	-79.25403	-85.00635	-92.43610	-99.89600	-107.38409	-114.16537	-120.72913
-126.83136	-132.71600	-138.06674	-143.20166	-148.35983	-150.89417	-149.12659	-149.32727
-150.52792	-150.80487	-151.11407	-151.69885	-151.67108	-151.34357	-151.18726	-150.42285
-149.93628	-149.01706	-153.29019	-163.83591	-156.72110	-120.46744	-87.70007	-74.42950
-95.18179	-98.77921	-39.79733	-50.29788	-57.66187	-456.83392	-591.56976	-587.28394
714.29407	460.37860	335.11169	283.83472	261.50769	258.29486	209.77332	102.42981
-23.76428	-24.14569	-12.91644	8.48956	10.44568	-22.31488	-30.69250	-36.85547
12.52637	39.56055	155.09332	-4.69659	48.88251	151.82993	208.86060	165.25919
-495.12701	-542.64313	497.20337	182.87067	238.02319	194.16998	265.10687	243.41266
184.82922	118.71393	79.36572	89.36481	93.85873	72.31628	66.57843	56.89685
38.75055	47.97372	51.20523	64.28107	140.85577	163.80920	89.59567	26.45499
58.51569	163.96146	139.28223	126.08295	125.69672	126.26669	115.16455	72.92880
30.14172	-15.76572	-25.02112	-18.04379	-10.11932	-10.97260	-1.66681	55.73068
69.14008	92.16870	118.61963	70.99643	31.49533	15.74716	16.97882	24.23318
13.32932	94.65125	124.62610	120.22580	72.79059	68.86011	75.65018	72.38794
69.34293	23.51340	-5.20038	-3.08133	-26.67542	-42.14346	-55.47525	-69.72144

-68.24634	-31.04428	9.59473	26.12650	47.78488	70.45734	61.96683	37.98828
51.75064	34.31030	44.37848	43.89188	49.20456	27.70459	-1.33047	-12.29959
-23.61517	-21.64398	20.66690	-13.23404	-52.37735	-64.19766	-72.19876	-79.18810
-84.89923	-91.16260	-97.19339	-102.20662	-107.50970	-111.79468	-115.84587	-119.40149
-123.24583	-126.07100	-128.67523	-130.78531	-132.66245	-134.30627	-135.71664	-108.92261
-2.93457	-14.38324	-30.68735	-28.83366	-29.36023	-66.53377	-61.61993	-60.64069
-44.27007	-45.44769	-39.06552	-26.53937	-10.48715	-44.34668	-60.44540	885.35345
-344.92874	-342.63672	782.50201	238.14954	181.88699	160.12415	116.54547	76.87994
41.36368	4.99451	-16.30923	10.55655	-6.80765	-1.90756	15.46335	7.37622
9.16281	4.48083	-33.54379	-65.05777	-33.74768	24.62384	50.56152	36.50900
-5.24466	-72.49170	-110.13647	-131.96490	-102.74593	-42.91782	-94.26817	-139.18279
-131.18530	-126.61546	-128.61156	-123.05699	-122.86916	-122.97351	-122.32362	-122.22684
-122.15981	-122.38376	-121.98714	-121.85991	-121.23962	-121.95682	-121.91881	-122.95613
-124.02226	-124.59392	-124.93231	-125.56024	-125.69283	-125.85284	-126.04002	-126.25412
-125.97176	-125.71576	-95.14722	-76.11229	-75.93378	-99.05768	-105.46809	-95.16476
-91.16295	-84.83159	-83.23206	-81.65639	-55.78107	-45.62152	-39.66975	-43.41786
-34.63474	-28.22791	-218.79684	-350.02914	665.50281	281.34943	235.88312	162.76669
122.87009	311.35016	950.24078	-401.12659	-417.03720	-452.96783	899.64050	557.55835
388.88702	304.22623	272.72275	188.33124	256.75037	448.89493	417.56131	-434.32214
-480.97137	381.16959	250.34470	168.43997	115.72818	81.95078	87.79361	153.74353
119.07550	118.45773	165.56979	167.47134	172.09378	99.44839	45.67172	-12.12006
-60.03607	-96.27548	-115.36063	-114.60672	-128.24100	-127.50919	-110.05878	-130.43179
-161.17770	-162.72614	-152.44699	-136.88010	-135.28909	-149.58102	-167.38885	-195.79637
-212.00131	-225.36865	-235.37492	-237.77446	-232.88971	-148.84024	-143.71298	-140.55954
-137.44550	-132.80118	-128.98010	-118.93964	-103.11050	-109.11380	-109.36638	-107.30182
-75.19992	-98.41891	-92.22302	-88.73239	-103.72086	-91.46542	-18.79123	-27.60034
-20.95789	-13.56424	-21.35275	-11.39053	-6.27310	-6.00922	-22.47409	-12.51385
43.46796	17.89594	18.96042	17.82782	27.04675	33.34497	27.53387	-406.31641
-410.11868	416.31769	236.79865	224.59586	286.81827	353.78299	306.62778	267.38000
230.69315	197.37494	165.86151	136.40115	110.15533	85.45840	63.28708	42.17761
24.30231	5.56973	-9.82425	-23.65747	-36.63602	-49.17999	-59.42087	-65.39429
-34.11337	-26.35413	-37.82620	-47.90506	-57.14526	-65.50299	-75.69270	-81.95056
-87.38911	-92.07498	-95.74629	-99.44887	-103.96703	-107.46973	-109.95660	-113.25816
-115.28177	-117.33482	-119.41707	-121.26663	-122.88321	-124.26656	-125.41637	-126.59392
-128.06049	-130.33887	-130.29024	-129.22214	-133.41122	-125.59555	-115.71341	-96.44141
-83.73325	-85.17331	-89.77672	-75.57382	-67.67221	-72.34860	-77.04886	-69.21884
-64.55061	-66.96715	-34.09871	-26.91382	-30.32759	-32.83444	-29.08624	-31.10468
-40.74478	-37.06134	-17.33099	6.63068	39.43631	16.67798	-19.65985	-27.16678
-0.20425	-15.33871	-28.67026	-33.79990	-35.68860	-43.09653	-49.34901	-55.88164
-64.52490	-76.32483	-74.01962	-78.53224	-78.32408	-83.34877	-92.69843	-95.18826
-75.98723	-68.04919	-69.28171	-50.48593	-34.92094	-49.97841	-64.79642	-79.61801
-89.06573	-98.79825	-107.50755	-115.19345	-115.84030	-94.80165	-251.12312	-374.33661
-371.85703	-369.40222	915.60852	710.15735	411.59894	210.25125	146.78885	81.10266
37.59396	24.72507	99.95026	160.29056	167.65729	149.92282	144.22906	138.51892
120.33997	92.23752	55.68011	47.93362	164.91034	365.64627	594.76611	511.05435
381.99316	307.56870	228.59790	130.13983	120.47519	156.09088	107.38055	75.04370
38.70874	19.65424	13.22910	5.90073	-0.67758	-6.73425	-12.49075	-17.69888
-22.34750	-27.03091	-31.30423	-36.50290	-41.39392	-46.31189	-50.47189	-54.39677

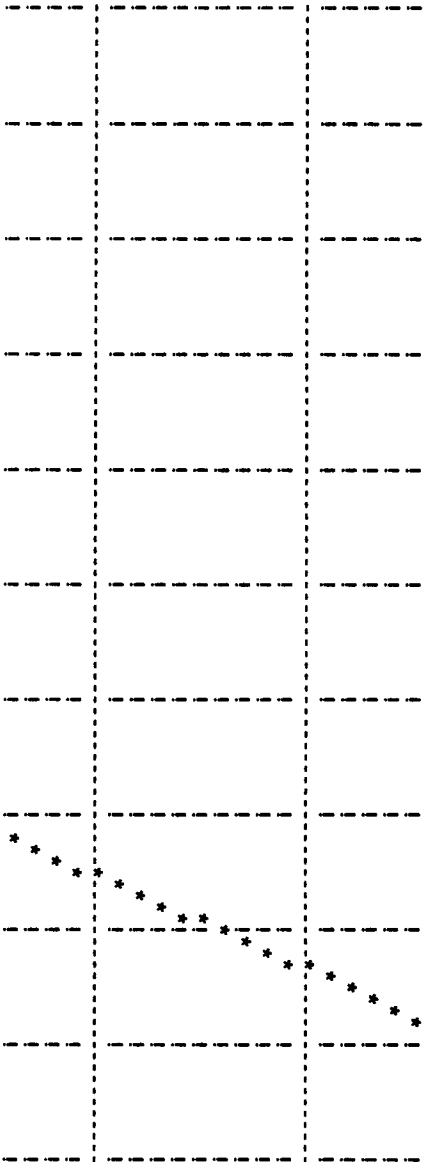
-58.34778	-62.32469	-65.28105	-68.78583	-71.31694	-73.87503	-76.19832	-78.54805
-80.13937	-82.01816	-83.92264	-85.32944	-86.49986	-87.95674	-88.91519	-89.63654
-90.64359							

el fichero de resultados (phi y RS) calculados en la fase 1 está almacenado en if8= 1, (primer registro libre: 2)

FUNCION DE TRANSFERENCIA O RESPUESTA IMPULSIONAL phi



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PRINCIPIO DE CALCULO EN LA FASE 2
a = 0.1106E+01 0.1354E+01

CUADRO DE VALORES DE phi (función de transferencia o respuesta impulsional)

3.72546	3.72546	3.72546	3.72546	3.72546	3.72546	3.72546	3.72546
3.72546	3.72546	3.72546	3.72546	3.72546	3.72546	3.72546	3.72546
1.01749	1.01749	1.01749	1.01749	1.01749	1.01749	1.01749	1.01749
1.01749	1.01749	1.01749	1.01749	1.01749	1.01749	1.01749	1.01749

norma en l-2 y en el infinito del resto de S: 0.109E+08 0.562E+05
media de la salida real, id. calculada, y coeficiente de correlación en 878 -1534 : 0.411E+03 0.411E+03 0.7963

RESIDUOS (diferencias S-phi*E)

-176.70807	-154.15024	-241.70987	-238.93927	-605.13953	-729.48914	264.58038	-38.66321
-62.19861	-48.43207	-32.97046	-50.42365	-91.48096	-59.36292	-62.54419	-90.06097
-76.97217	-64.18451	-56.40381	-45.69324	-58.34552	10.41187	-17.74261	-58.73022
-103.22015	-126.62451	-93.64703	-84.85660	-91.78317	-111.70975	-101.44150	-6.31061
-595.27881	175.82941	68.21259	-9.41547	-32.49969	-122.56720	-99.94391	-37.05768
43.47937	84.52679	7.70898	-29.39532	-153.29681	-201.78583	-183.11206	-137.22699
-25.28857	54.06262	71.25647	48.40735	26.81708	6.97495	-12.59283	-29.92508
-46.49478	-62.53870	-76.60397	-89.90158	-92.38702	-105.08994	-114.17041	-123.89136
-132.54123	-86.92380	-63.10623	-59.75101	-58.35001	-56.98834	-55.90463	-54.38226
-52.89862	-51.45294	-49.80746	-48.43680	-47.06561	-45.73077	22.03952	45.13235
46.03207	43.99185	38.77979	27.75699	52.46606	55.84613	298.33389	-644.63263
-727.35138	-852.09119	-848.63574	-845.21484	-971.32501	-967.97217	-964.65283	269.18475
102.11432	-188.71942	-189.15479	-192.75110	-208.59509	-154.95239	-142.17834	13.13770
43.17969	-585.84979	-10.81964	23.82593	-23.76489	-7.40033	95.80695	86.89734
128.77222	141.24725	123.72351	-541.22925	-658.93787	-685.84650	-714.55585	-761.95752
678.47614	35.64868	-105.09833	-83.92456	-116.66992	-139.76263	-178.00854	-152.63382
-137.09698	-131.20966	-136.79779	-145.17950	-66.08759	-53.03455	-37.93848	-8.50711
-15.51465	-22.29553	-28.59528	-34.66968	-40.75800	-44.21313	-43.35712	-44.46033
-46.55444	-47.71591	-48.90179	-50.35452	-51.26596	-51.88794	-52.69241	-52.91299
-53.40152	-53.44763	-58.67645	-70.16830	-63.99017	-28.66382	3.18552	15.54721
-6.10486	-10.59302	47.50699	36.13339	27.90512	-416.70551	-822.76288	-819.31567
481.43213	222.58575	96.50519	44.42261	21.29797	17.29559	-32.00763	-140.12494
-267.08514	-268.22504	-257.74664	-237.08398	-235.86383	-220.28461	68.30276	61.42578
110.10068	140.95728	255.79721	95.32135	148.22137	250.49652	306.86163	262.60132
-398.43719	-545.43433	493.77283	178.80719	230.62671	186.10828	256.11450	233.49890
174.00336	106.98083	66.73456	75.84454	79.45825	57.04440	50.44385	39.90820
20.91635	138.08136	140.48416	152.73956	231.48083	252.47375	177.46417	113.53540
144.81589	249.48929	199.31808	142.10751	140.97183	140.79984	128.96313	86.00018
42.49316	-4.22641	-14.28589	-8.10455	-0.97086	-1.33426	7.19647	63.82669
76.47647	98.75308	151.67456	150.92029	110.68951	94.21896	94.73547	101.28180
41.20667	121.83469	145.11911	140.03873	91.93021	87.33197	93.46100	89.54431
85.85138	39.38040	10.00677	11.42902	-12.85495	-29.00592	-43.01382	-57.92935

-3.77005	32.77597	31.22244	47.11124	68.13309	90.17535	81.06094	56.46478
69.61569	51.57001	61.03888	59.95895	64.68427	42.60281	12.99207	1.45303
-10.47556	-9.11124	85.58768	51.08597	11.34790	-1.06122	-9.64523	-17.21167
-23.49411	-30.32310	-36.91383	-42.48140	-48.33331	-53.16162	-57.75069	-61.83881
-66.21036	-69.55742	-72.72679	-75.39635	-77.82735	-80.01956	-81.97278	-55.71619
40.68544	28.71001	11.88443	13.22185	12.18419	-105.87737	-101.46448	-108.58383
-92.70418	-94.36789	-88.46689	-76.41711	-60.83649	-130.98669	-147.54764	797.79358
-513.24927	-511.40576	613.28894	18.96857	-67.86938	-1.59387	-45.59909	-77.31924
-113.25351	-150.03659	-196.37885	-174.24905	-192.01477	-148.08429	-131.10693	-139.58371
-38.83682	-43.90970	-82.32129	-59.70709	4.39624	62.31140	87.79727	73.28986
31.08578	-36.60715	-47.58661	-65.08603	-36.29970	23.06406	-28.74602	-74.11571
-66.65961	-62.62575	-65.15245	-60.17302	-60.58488	-61.28297	-61.22086	-61.70596
-62.21500	-63.00925	-63.20201	-63.66264	-63.62431	-64.91768	-65.45006	-67.05205
-68.67725	-69.80235	-70.68864	-71.85902	-72.52861	-73.22028	-73.93378	-74.66893
-74.90242	-75.15712	-45.09416	-45.55975	-26.87679	-50.49126	-57.38731	-47.56480
-44.03899	-38.17888	-37.04587	-35.93205	-10.51398	-0.80710	4.69652	0.50475
8.84865	14.82065	-176.17877	-567.31354	447.79651	63.22540	17.34558	-56.18024
-96.48212	91.59668	688.68115	-753.45807	-804.56580	-914.59619	437.63055	95.17065
-73.87463	-158.90570	-190.77570	10.05170	78.11163	269.90051	238.21478	-614.01721
-755.17200	106.62732	21.03925	26.47772	11.75208	47.16394	22.24640	87.87469
52.88824	51.95520	98.75519	100.08673	104.14484	30.94073	-23.38898	-81.72833
-26.55273	-63.32883	-82.98694	-69.92004	-84.24091	-71.48145	-21.27985	-42.39175
-73.86917	-76.14182	-66.57962	-51.72247	-48.83417	-65.82175	-84.31830	-113.40761
-130.38226	-144.51163	-155.27229	-158.43059	-154.29697	-71.00281	-66.65393	-64.27109
-61.91989	-58.03085	-54.95749	-45.65723	-30.56094	-37.28970	-38.26051	-36.90701
-5.50906	-90.71414	-85.20816	-82.40057	-133.93823	-122.35226	-50.34082	-59.80606
-53.81314	-47.06256	-122.95255	-116.89294	-112.39948	-112.75336	-129.82977	-120.47495
-65.09253	-23.80258	-23.32556	-25.03973	23.08557	28.81375	22.43835	-482.65857
-499.90656	325.98230	220.17349	211.03561	272.72675	339.16553	291.48956	251.72632
214.52908	180.64401	148.56937	118.55334	91.72137	66.44415	43.69830	99.81989
95.57123	76.28125	60.26752	45.81747	32.22827	19.07974	8.24039	1.67444
32.36874	39.54724	27.50024	16.85223	7.04852	-1.86703	-12.60902	-19.48474
-25.54797	-30.85223	-35.13576	-39.44446	-44.56267	-48.65939	-51.73437	-55.61816
-58.21815	-60.84186	-63.48901	-65.89786	-68.06813	-69.99963	-71.69212	-73.40692
-75.40535	-78.21027	-78.68294	-78.13092	-82.83088	-75.52103	-66.13963	-47.36337
-35.14598	-37.07193	-42.15634	-28.42966	-20.99948	-26.14261	-31.30492	-23.93233
-19.71698	-22.58185	9.84274	-66.89395	-107.64912	-110.58664	-107.26483	-113.24835
-155.36563	-152.09592	-132.77515	-109.21890	-76.81470	-99.97043	-136.70166	-144.59808
-183.64069	-199.15689	-212.86633	-126.48895	-88.12860	-95.90323	-102.51875	-105.51131
-79.22562	-91.37778	-89.42130	-94.27919	-99.41280	-103.77583	-109.46048	-112.28195
-21.18787	-13.57487	-15.12917	3.26407	18.39337	2.90460	-12.34039	-27.58827
-37.49028	-47.67253	-56.82707	-64.95377	-66.03699	-45.43034	-202.17952	-569.66901
-567.67462	-565.70020	718.83496	512.91309	213.88855	12.07941	-51.83978	-117.97824
-161.93463	-175.24677	-100.46036	-40.55450	-33.61783	-51.77805	-57.89334	204.36542
185.77335	157.26187	120.29956	112.15222	187.07712	387.42020	616.15112	532.05420
402.61185	327.80997	248.46555	149.63760	139.60675	174.85992	125.79068	92.85318
55.92358	36.28036	29.27243	21.36707	60.06335	53.44118	47.12486	41.36247
36.16513	30.93852	26.12743	20.39635	14.97823	9.53845	4.86186	0.42555

-4.03177	-8.50995	-11.96252	-15.95857	-19.01796	-22.09904	-24.94008	-27.80241
-29.90120	-32.28235	-34.68419	-36.58337	-38.24126	-40.18073	-41.61693	-42.81126
-44.28656							

el fichero de resultados (phi y RS) calculados en la fase 2 está almacenado en if8= 2, (primer registro libre: 3)

FUNCION DE TRANSFERENCIA O RESPUESTA IMPULSIONAL phi

	0.000	0.373	0.745	1.118	1.490	1.863	2.235	2.608	2.980	3.353	3.725
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PRINCIPIO DE CALCULO EN LA FASE 3

a = 0.2977E+00 -0.1308E+00 0.3565E+00 0.8429E+00

CUADRO DE VALORES DE phi (función de transferencia o respuesta impulsional)

5.09171	5.09171	5.09171	5.09171	5.09171	5.09171	5.09171	5.09171
2.69297	2.69297	2.69297	2.69297	2.69297	2.69297	2.69297	2.69297
1.93238	1.93238	1.93238	1.93238	1.93238	1.93238	1.93238	1.93238
0.95959	0.95959	0.95959	0.95959	0.95959	0.95959	0.95959	0.95959

norma en l-2 y en el infinito del resto de S: 0.918E+07 0.522E+05
 media de la salida real, id. calculada, y coeficiente de correlación en 878 -1534 : 0.411E+03 0.412E+03 0.8320

RESIDUOS (diferencias S-phi*E)

-140.92450	-118.71506	-206.62900	-204.20917	-570.75677	-743.26898	250.46014	-53.12042
-76.98944	-63.55322	-48.41852	-66.19543	-107.57318	8.18323	4.68793	-23.13983
-10.35889	2.12402	9.60297	20.01489	7.06683	7.37360	-21.07068	-62.34521
-107.11920	-130.80481	-98.10571	-89.59091	-96.79034	-82.93933	-72.93854	21.92758
-604.97028	113.04547	-15.54059	-93.42291	-116.75897	-207.09601	-184.73956	-122.11755
24.29120	157.83875	117.12939	79.77136	-49.32715	-98.06488	-79.63733	-33.99609
24.01208	27.81964	15.25482	-7.82843	-20.96710	-41.03879	-60.83374	-78.39093
-68.36340	-47.00989	-46.54587	-60.05957	-69.80838	-82.72308	-92.01318	-101.94168
-110.81299	-65.43719	-41.86761	-38.75787	-34.07843	-32.95740	-32.11191	-30.82535
-29.57516	-28.36063	-26.94397	-25.79987	-24.65506	-23.54431	44.00412	66.87729
67.55957	65.30408	59.87888	48.64511	73.14529	76.31857	311.74304	-731.31281
-845.86084	-1017.82568	-1014.56689	-1011.34064	-1185.13440	-1181.97241	-1166.80042	242.22174
130.49683	-77.95575	-78.57263	-90.80566	-23.44757	30.01904	32.84302	45.61438
30.40393	-665.82312	-125.02106	-75.69305	-191.13855	-174.93646	-67.00659	-4.95459
59.28278	105.08527	146.64734	-530.51257	-658.70197	-696.59485	-736.95941	-803.17517
637.05481	-5.99414	-194.52490	-167.54663	-123.02405	-127.32751	-145.60645	-87.76505
-72.45404	-66.79028	-49.14642	-57.75079	-41.79889	-44.40674	-45.92358	-43.24878
-50.46811	-57.45865	-63.58154	-69.87573	-44.75070	-40.70700	-31.87335	-19.92850
-22.23160	-23.60004	-24.99100	-26.64673	-27.77789	-28.62198	-29.65125	-30.10220
-30.81885	-31.09082	-36.54318	-48.25638	-42.29736	-7.18793	24.44662	36.59573
14.73315	10.03662	67.93033	56.35251	47.92206	-421.64523	-978.09277	-974.84174
325.71179	64.39154	-61.87946	-114.15051	-137.46167	-98.18365	116.02325	7.72485
-119.41455	-116.72595	-106.42322	-85.93445	-84.88647	-104.76404	-30.41962	-37.46362
11.04590	38.48669	153.16455	-7.47180	45.26938	165.01425	328.16275	283.74829
-377.44281	-577.84875	461.20886	146.09509	196.26514	191.59106	221.37964	198.54852
138.83954	167.96204	127.50568	136.40765	142.45407	119.83636	113.03403	102.29855
83.10892	121.85229	124.06122	136.12469	212.53384	232.69653	157.50076	93.38760
124.48557	268.05536	203.97446	122.56812	122.32718	123.10901	111.10046	67.96738
24.29196	-22.61761	-8.75787	39.40698	46.35568	44.89389	53.24332	109.69406
122.16614	144.26685	177.44305	142.28165	101.88016	85.69785	86.04706	92.42776
5.27350	85.73920	115.30582	127.16803	78.90201	74.14758	80.12195	76.05215
119.46274	72.84171	49.16663	50.42584	25.98053	9.66977	-4.49628	-19.56839

-3.92728	32.46527	-0.72931	15.00906	35.88202	57.77686	48.51651	23.77585
55.94775	37.76044	96.40598	95.18726	99.77518	77.55771	47.81229	36.13992
24.06793	25.29028	81.73721	47.09497	7.21777	-5.32907	-14.04947	-21.75090
-28.16699	-35.12830	-22.81245	-28.50972	-34.49001	-39.44540	-44.16032	-48.37300
-52.86787	-56.33702	-59.63861	-62.43904	-64.99962	-67.32011	-69.40031	-43.26945
47.97990	35.88126	18.93367	20.15033	18.99310	-143.82225	-139.52652	-150.98361
-126.39146	-128.16888	-122.38046	-110.44214	-94.97183	-106.75720	-123.42627	829.22003
-539.22296	-537.48431	587.10651	-34.81934	-138.49561	-101.01587	-145.12088	-182.95718
-127.39975	-164.27963	-224.39392	-156.47708	-144.95227	-97.68735	-80.80206	-86.36407
-57.15848	-62.32281	-76.81360	-89.26779	-49.10843	22.86383	48.24402	33.63016
27.01248	-40.78476	-71.36063	-72.80734	-32.20552	27.04962	-24.86800	-70.34416
-63.01471	-59.10622	-52.01939	-45.46239	-46.01456	-46.85152	-46.92690	-47.54813
-48.19193	-49.11958	-49.45023	-50.04839	-50.14621	-51.57434	-52.24017	-53.97426
-55.73022	-56.98480	-57.99927	-59.29654	-60.09175	-60.90779	-61.74442	-62.60146
-62.95563	-63.32979	-33.38510	-14.96779	-15.40073	-39.12996	-46.13965	-36.42960
-33.01514	-27.26527	-26.24139	-25.23563	0.07547	9.67647	15.07526	10.77969
19.02084	24.89113	-166.20900	-701.52832	313.48309	-71.18573	-117.16229	-190.78387
-231.18060	-43.19562	530.80194	-708.63397	-779.17242	-930.22583	421.91168	79.36334
-89.76941	-174.88708	-166.47217	-82.99365	18.92438	282.49615	250.72803	-601.58557
-795.10748	66.61194	-51.82947	-21.94983	-64.30823	-93.76514	-135.65918	-70.10614
-13.36749	-14.37427	48.72479	97.14362	114.83472	81.96686	57.18005	-1.28738
-20.76434	-57.66599	-77.45813	-73.87308	-88.35458	-84.96304	-59.02502	-80.30978
-74.72955	-77.17160	-67.77713	-48.42633	-45.70242	-58.26114	-64.88535	-94.13417
-111.28888	-125.59653	-136.53368	-139.86943	-135.91153	-52.79407	-48.62729	-46.42468
-44.25198	-40.53961	-37.64114	-28.51404	-13.58920	-20.48767	-21.62654	-20.43936
10.79391	-108.60751	-103.26294	-100.61514	-172.23090	-160.80154	-88.94516	-98.56387
-92.72293	-26.37030	-139.87180	-135.77676	-96.45572	-96.95407	-114.17355	-104.96039
-49.71817	-57.07599	9.03690	10.37701	29.97498	35.56982	29.06241	-515.41760
-539.95410	310.03888	150.70645	138.85306	214.60321	280.91895	233.12119	262.15302
237.40576	203.38803	197.85605	169.00391	142.03479	116.62183	93.74158	93.78220
79.19763	59.77725	43.61853	29.02420	15.29214	2.00217	-8.97720	12.26657
47.92108	54.96375	42.78226	32.00108	22.06558	13.01952	2.14833	-4.87193
-11.08128	-16.53023	-20.95697	-25.40746	-30.66603	-34.90172	-38.11429	-42.13426
-44.86911	-47.62628	-50.40561	-52.94528	-55.24509	-57.30482	-59.12425	-60.96472
-63.08757	-66.01567	-66.61029	-66.17900	-70.99848	-63.80695	-54.54269	-35.88240
-23.77983	-25.81943	-31.01637	-17.40108	-10.08121	-15.33350	-20.60390	-13.33833
-9.22891	-12.19865	20.12209	-103.07431	-164.42500	-167.46326	-164.24118	-172.29086
-232.30817	-229.13522	-209.91025	-105.05981	-36.76846	-60.01715	-96.84045	-101.37381
-145.68900	-161.29449	-175.09235	-154.87674	-145.81354	-153.67395	-160.37440	-166.25523
-101.45273	-113.68732	-111.81241	-83.74419	-74.36589	-78.80809	-84.57108	-86.06931
-34.31288	-26.77592	-28.40549	-10.10641	4.92097	-10.66870	-26.01357	-41.36119
-25.42509	-35.71254	-44.97124	-53.20105	-54.38635	-33.88078	-190.73000	-693.72772
-691.84680	-689.98474	594.43915	388.40710	89.27356	-112.64349	-176.66956	-5.17517
-49.23630	-62.65213	12.03162	71.83585	78.67191	60.41208	54.19818	123.35562
104.66690	76.05975	39.00272	30.76160	82.46304	282.71420	511.35413	523.58063
394.04907	319.15894	239.72711	140.81262	171.30670	206.47504	157.32184	124.24384
87.17511	67.39420	60.24991	52.20959	57.80328	51.04883	44.60153	38.70949
33.38379	28.03011	23.09320	17.23758	28.16553	22.60368	17.80624	13.25031

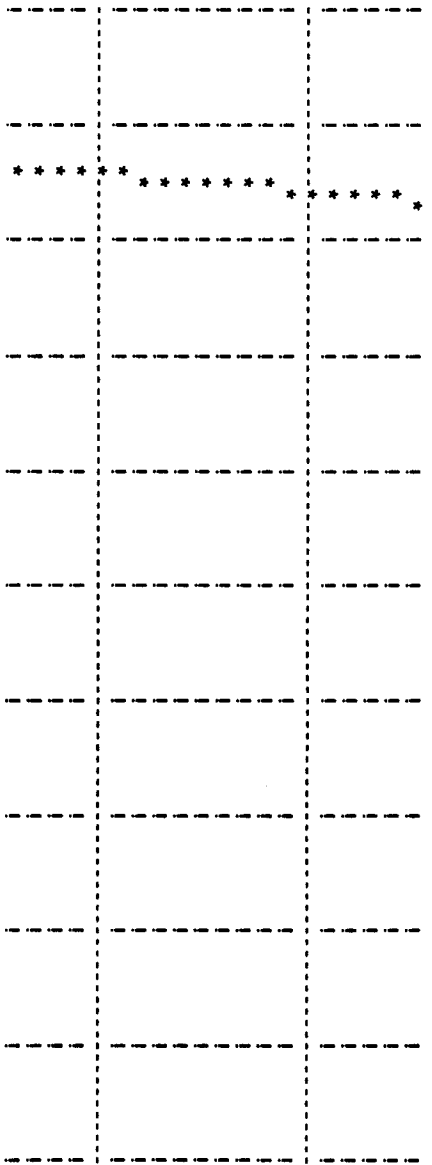
8.67453	4.07910	0.51042	-3.60054	-6.78351	-9.98694	-12.94910	-15.93134
-18.14883	-20.64751	-23.16570	-25.18005	-26.95198	-29.00435	-30.55232	-31.85728
-33.44214							

el fichero de resultados (phi y RS) calculados en la fase 3 está almacenado en if8= 3, (primer registro libre: 4)

FUNCION DE TRANSFERENCIA O RESPUESTA IMPULSIONAL phi

	0.000	0.509	1.018	1.528	2.037	2.546	3.055	3.564	4.073	4.583	5.092
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PRINCIPIO DE CALCULO EN LA FASE 4
a = 0.1856E+00 -0.3699E-01

0.1924E+00 -0.1034E+00 -0.2540E-01 0.2905E+00 0.2070E+00 0.4407E+00

CUADRO DE VALORES DE phi (función de transferencia o respuesta impulsional)

6.24226	6.24226	6.24226	6.24226	4.41648	4.41648	4.41648	4.41648
3.13528	3.13528	3.13528	3.13528	2.36996	2.36996	2.36996	2.36996
1.77697	1.77697	1.77697	1.77697	1.94141	1.94141	1.94141	1.94141
2.02765	2.02765	2.02765	2.02765	0.92840	0.92840	0.92840	0.92840

norma en l-2 y en el infinito del resto de S: 0.854E+07 0.509E+05
media de la salida real, id. calculada, y coeficiente de correlación en 878 -1534 : 0.411E+03 0.412E+03 0.8447

RESIDUOS (diferencias S-phi*E)

-121.65271	-99.63083	-187.73563	-185.50476	-552.23938	-765.20605	228.33972	-75.42236
-99.47101	-22.31042	-7.35187	-25.30310	-66.85345	9.61835	5.95380	-22.04138
-9.42621	29.67896	36.99542	47.24640	34.13916	28.42187	-0.17847	-41.60754
-86.53455	-116.12689	-83.57770	-75.21133	-82.55774	-105.91830	-96.06155	-1.33804
-660.09772	51.76019	-94.40656	-172.42590	-145.56091	-165.44019	-115.54871	-53.06897
62.38843	152.58136	94.79211	57.29736	-55.00140	-74.27795	-44.38068	1.12933
60.99591	58.19330	42.96021	19.75079	-2.09174	-28.64572	-51.05597	-68.73425
-85.25369	-104.97171	-120.68021	-134.31024	-114.47467	-84.99542	-77.73383	-87.77411
-97.35995	-52.11426	-28.67825	-25.70074	-24.98587	-23.99445	-23.27722	-22.11768
-17.01398	-15.92392	-14.63049	-13.60840	-12.58548	-11.59546	55.83350	78.58838
79.15353	76.78210	71.24213	59.89471	84.28241	87.34433	316.88275	-810.39905
-951.69043	-1163.36426	-1151.04590	-1014.44189	-1186.06592	-1120.16345	-1110.70312	216.51514
142.28357	-104.73334	-101.60596	-65.10480	-18.97070	60.74359	62.63226	74.35834
81.77844	-620.30878	-109.10565	-78.80646	-203.97314	-193.51849	-45.47498	-56.19720
-22.27716	-13.01056	5.65454	-592.25903	-769.06860	-778.32990	-808.63544	-891.65460
645.66650	16.97662	-160.93591	-115.74463	-107.45624	-120.74707	-152.34546	-103.05453
-63.13745	-51.52502	-54.02679	-52.31970	-41.90192	-45.95648	-21.66409	-21.38901
-34.03534	-42.44278	-50.50400	-59.15784	-68.36731	-72.83777	-72.58530	-75.18875
-42.08771	-34.85049	-27.09622	-13.87854	-15.12802	-16.09174	-17.24207	-17.81714
-18.65662	-19.05020	-24.62299	-36.45538	-30.61438	4.37823	35.89716	47.93173
25.95581	21.14703	78.92966	67.24185	58.70248	-431.82059	-1114.85486	-1111.70947
188.73938	-41.52271	32.81146	-19.56104	-42.97272	-20.99493	70.26263	-38.13324
-165.36920	-150.77472	-56.43433	-36.03925	-35.08392	-56.81232	-0.98398	-8.11801
40.30246	64.39557	160.90961	0.18686	52.84247	153.03836	199.68359	155.18613
-506.08716	-734.64227	425.17535	109.98187	158.80737	189.22675	258.89801	235.95081
178.13525	162.25201	121.68246	130.47244	135.17868	143.19431	136.28329	125.44022
106.98590	138.89096	140.99548	152.95560	229.07806	241.99326	166.69717	102.48477
133.30353	235.09277	159.35251	57.62408	56.12378	100.44379	106.69177	95.56424
53.00729	6.35507	8.88226	37.30054	44.14963	42.51041	58.45374	128.26221
140.63858	162.56726	193.96521	155.76437	115.27097	98.49988	97.10641	100.50711
-9.40131	71.49362	87.52307	80.68179	68.29877	63.46021	84.85364	100.02621

121.33969	74.63785	48.15283	49.32428	39.86896	23.47217	11.08832	-4.06812
8.18762	44.49753	-11.70413	3.95325	21.50656	43.32202	69.31232	44.49384
55.72577	37.46219	71.57797	70.28452	96.45364	74.16290	62.00455	50.26038
38.11118	39.25708	92.34744	57.62952	17.67738	5.05634	-6.95551	-14.72964
-21.21771	-28.25029	-36.73027	-42.49738	-48.54680	-53.57066	-36.84100	-41.12079
-45.68208	-49.21698	-52.58977	-55.46068	-58.09105	-60.48062	-62.62923	-36.56607
50.38222	38.21721	21.20393	22.35555	27.85278	-172.61482	-168.38220	-183.45700
-163.03920	-105.22971	-99.50189	-81.98193	-63.75467	-128.86081	-145.58813	803.54730
-607.78320	-554.51459	570.02032	-72.75665	-124.19934	-108.52100	-152.67972	-154.33432
-121.36349	-152.52451	-224.20746	-181.37082	-151.46136	-141.28549	-106.17377	-96.43787
-64.05637	-35.75162	-61.47772	-75.92435	-43.89920	12.59607	45.58026	28.94592
-18.59872	-70.44705	-102.75632	-125.87140	-57.96571	1.23090	-52.39064	-76.08565
-55.35860	-51.51764	-55.09857	-50.47792	-51.10565	-52.01741	-41.16335	-39.92322
-40.63959	-41.63910	-42.04401	-42.71622	-42.88736	-44.38809	-45.12576	-46.93100
-48.75740	-50.08171	-51.16521	-52.53082	-53.39369	-54.27670	-55.17964	-56.10234
-56.52150	-56.96001	-27.07901	-8.72476	-9.22012	-33.01117	-40.08203	-30.43257
-27.07808	-21.38757	-20.42249	-19.47490	5.77859	15.32256	20.66489	16.31342
24.49924	30.31473	-160.83963	-817.54974	197.40851	-187.31293	-233.34161	-114.46826
-154.91608	33.01837	587.60205	-811.99847	-898.86627	-1084.43872	298.37842	103.55457
-39.79053	-70.25452	-80.69391	-55.98437	30.07520	260.12079	241.18878	-600.39978
-827.16742	57.43817	-63.86676	-157.82162	-132.28162	-172.23199	-231.16675	-47.02167
-35.41809	-32.77344	35.04773	39.14343	71.06714	1.12549	-19.05450	-33.54962
-43.95490	-44.37827	-54.77551	-52.07626	-72.93726	-70.43179	-46.66113	-68.82663
-103.86774	-107.17719	-99.90710	-85.71851	-41.01483	-58.65982	-78.47104	-102.54033
-119.79202	-129.00723	-126.44170	-129.87306	-126.00977	-42.98746	-38.91873	-36.81323
-34.73663	-31.11945	-28.31519	-19.28134	-4.44879	-11.43869	-12.66805	-11.57043
19.57416	-128.57529	-123.31766	-120.75592	-209.23190	-152.40677	-80.63385	-90.33524
-57.95633	-19.52255	-164.65237	-162.16696	-139.21826	-120.73016	-87.96387	-76.39868
-10.07355	-21.68127	13.71475	13.49527	30.57693	32.00388	46.41058	-530.17725
-563.20984	260.33368	96.33716	136.64777	206.45740	300.08914	247.71698	244.35825
229.71790	195.62875	160.98740	152.64453	129.61191	104.12582	111.31464	107.93021
92.39639	72.90579	56.66901	37.27267	22.60205	9.23593	-1.81888	-11.07574
18.95554	25.92502	13.67111	34.39966	30.15324	21.03690	10.09613	2.99802
-3.29002	-8.81688	-13.32076	-17.84761	-23.18178	-27.49231	-30.77898	-34.87231
-37.67976	-40.50883	-43.35934	-45.96947	-48.33902	-50.46783	-52.35564	-54.26379
-56.45364	-59.44809	-60.10838	-59.74210	-64.62597	-57.49815	-48.29698	-29.69916
-17.65840	-19.75923	-25.01677	-11.46147	-4.20099	-9.51208	-14.84070	-7.63277
-3.58041	-6.60664	25.65820	-136.63177	-215.29552	-218.38803	-215.21970	-163.03067
-210.70566	-207.58484	-188.41147	-118.90100	-43.63339	-66.93219	-103.80502	-84.02924
-162.15982	-177.81342	-191.65891	-176.07529	-110.90726	-118.81384	-125.56004	-137.30684
-107.00439	-119.28333	-117.45236	-125.59743	-113.87901	-118.36385	-124.16907	-89.93652
-40.00203	-32.50601	-34.17612	-14.34486	10.56535	-5.07866	-20.47734	-35.87866
-48.24419	-58.58830	-67.90309	-76.18843	-48.11172	-27.66057	-184.56367	-801.64587
-799.82611	-798.02454	486.33942	461.20093	162.00867	-39.96649	-104.05011	-43.37186
-87.48941	-100.96106	-26.33261	109.26834	116.05020	97.73672	91.46976	143.96286
125.22208	96.56339	59.45535	34.86642	67.03903	267.24066	495.83157	403.04892
304.37973	229.44202	149.96313	159.94873	171.47675	206.59943	157.40100	124.24731
100.06067	80.20557	72.98788	64.87485	67.55896	60.73325	54.21542	48.25356

40.07481	34.65268	29.64803	23.72533	16.65746	11.02986	6.16733	1.54697
15.51770	10.85913	7.22794	3.05507	-0.19446	-3.46378	-6.49117	-9.53799
-11.81941	-14.38139	-16.96223	-19.03864	-20.87196	-22.98512	-24.59329	-25.95786
-27.60170							

el fichero de resultados (phi y RS) calculados en la fase 4 está almacenado en if8= 4, (primer registro libre: 5)

FUNCION DE TRANSFERENCIA O RESPUESTA IMPULSIONAL ϕ_i

	0.000	0.624	1.248	1.873	2.497	3.121	3.745	4.370	4.994	5.618	6.242
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PRINCIPIO DE CALCULO EN LA FASE 5

a = 0.6134E-01 -0.8198E-01 0.1079E-01 -0.7482E-01 -0.1582E+00 0.8987E-01 0.3606E-01 0.2244E-01

CUADRO DE VALORES DE phi (función de transferencia o respuesta impulsional)

6.14781	6.14781	6.33671	6.33671	4.49135	4.49135	4.34161	4.34161
3.30547	3.30547	2.96509	2.96509	2.45335	2.45335	2.28656	2.28656
1.57304	1.57304	1.98090	1.98090	1.62206	1.62206	2.26075	2.26075
2.49099	2.49099	1.56431	1.56431	0.93387	0.93387	0.92292	0.92292

norma en l-2 y en el infinito del resto de S: 0.845E+07 0.506E+05
 media de la salida real, id. calculada, y coeficiente de correlación en 878 -1534 : 0.411E+03 0.411E+03 0.8464

RESIDUOS (diferencias S-phi*E)

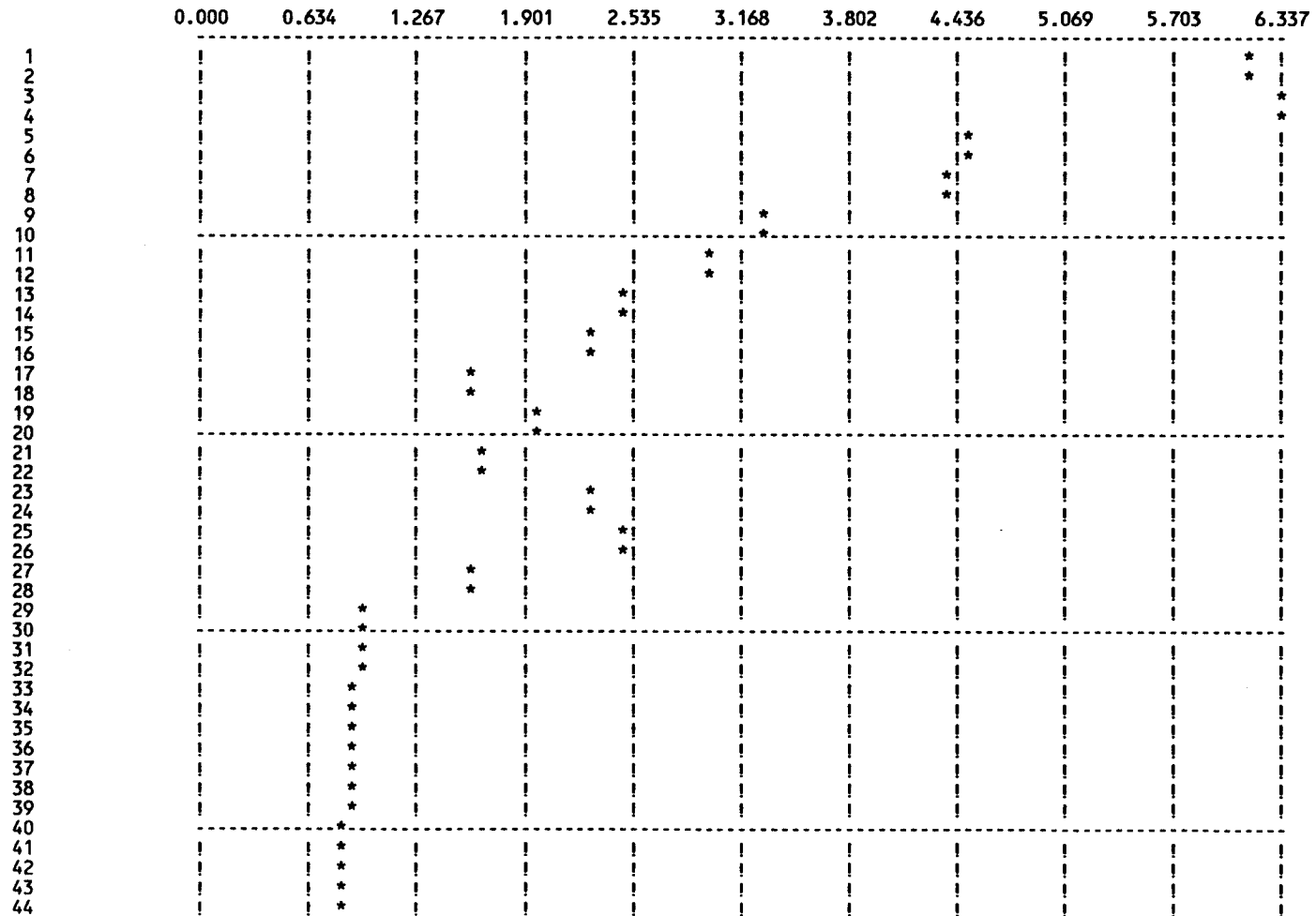
-118.26898	-96.28006	-184.41837	-182.22070	-548.98816	-758.68152	234.83203	-75.57343
-99.65363	-21.83899	-6.91132	-19.65228	-61.23297	6.63171	2.93756	-13.17377
-0.58771	29.61328	36.90118	52.96143	39.82617	38.30011	9.67230	-46.05902
-91.01288	-102.31714	-69.79431	-83.80820	-91.18039	-119.60632	-109.77487	17.35745
-638.82306	60.25421	-89.71301	-174.67792	-150.16058	-169.30823	-115.01672	-46.77148
64.17487	144.86682	92.72247	68.36627	-45.44543	-74.55157	-44.60742	7.32910
73.09540	74.93146	50.80060	11.79712	-2.71088	-9.05151	-39.92688	-82.32471
-113.43564	-138.74277	-130.50247	-108.31824	-86.94333	-75.61322	-76.65323	-86.28961
-93.83612	-48.61328	-27.51279	-24.55847	-24.38788	-23.41916	-19.36990	-18.23267
-14.84814	-13.77994	-12.46851	-11.46783	-10.46634	-9.49750	57.91049	80.64459
81.18921	78.79739	73.23727	61.86990	86.23785	89.28021	319.27344	-801.12225
-941.19434	-1163.44653	-1155.42151	-1023.90643	-1191.06055	-1113.55457	-1108.44214	205.99609
128.46320	-102.12085	-87.19879	-56.95343	-24.38770	57.60602	75.77600	102.16028
101.49268	-625.35352	-112.82922	-59.84448	-176.63849	-192.77576	-73.94513	-118.76324
-61.61755	11.45990	20.93811	-578.62262	-759.78992	-786.17712	-795.65393	-875.28583
648.98151	13.89764	-155.74738	-110.01367	-118.43298	-125.91211	-135.65668	-89.93021
-71.21600	-56.92847	-59.73779	-60.18549	-21.55475	-22.40082	-21.76495	-23.10150
-22.28381	-32.12064	-56.49203	-63.09924	-81.97955	-96.31763	-67.54895	-64.78644
-39.04544	-22.91486	-18.77359	-11.87820	-13.05627	-13.89172	-15.06326	-15.66013
-16.52118	-16.93613	-22.53006	-34.38336	-28.56308	6.40900	37.90759	49.92209
27.92627	23.09778	80.86090	69.15378	60.59528	-428.23526	-1100.90540	-1101.20142
178.46326	-51.30457	25.16412	-24.82831	-31.79669	-14.24420	50.05658	-51.93866
-141.77356	-132.20007	-65.75256	-41.78333	-22.50970	-42.49353	26.56961	12.30789
15.87659	49.63724	203.65973	30.66757	13.09680	111.54254	142.34375	113.55652
-445.86124	-679.37195	428.89459	107.84497	157.96436	188.37262	257.81555	240.88129
183.06714	157.31973	116.89508	139.33844	143.75565	141.56561	135.00989	130.84769
112.09573	148.82428	151.09393	146.65213	222.88922	256.85101	181.08868	91.11380
122.49094	218.48804	142.97751	80.18793	76.61420	98.64938	106.09723	95.89777
54.31409	10.15714	10.21576	34.38663	44.63904	49.02304	62.40073	127.54257
141.57831	166.66837	199.26126	162.86301	118.25446	94.22949	98.07913	111.09891
-3.38318	66.04785	77.12405	67.74149	64.58151	76.01923	95.68411	102.60040

119.54730	73.02380	52.63171	53.78775	40.15213	23.74020	14.00833	-1.16290
13.85971	50.15512	-11.95325	3.68988	26.84570	48.64722	63.70148	38.86932
48.62305	30.34610	77.55704	76.25046	102.09326	79.78964	61.72778	49.97101
41.09894	42.23141	97.66730	62.93608	14.98895	2.35489	0.57066	-7.21625
-26.21614	-33.26123	-44.57156	-50.35092	-38.27737	-43.31325	-35.77022	-40.06178
-44.42041	-47.96686	-51.35214	-54.23544	-56.87805	-59.27975	-61.44037	-35.38910
51.89499	39.71834	21.99837	23.13857	28.69655	-168.69655	-163.92398	-184.88928
-165.38417	-107.52945	-100.55966	-78.09775	-60.81409	-132.09879	-148.22256	808.51538
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-47.05566	-19.97250	-61.08154	-83.93170	-27.83212	18.97916	20.98508	27.92038
-16.83771	-88.08521	-93.02170	-118.67343	-73.82481	3.29776	-33.34230	-65.56367
-56.98491	-54.05945	-58.95935	-54.60484	-45.96976	-45.26370	-39.11549	-38.71335
-39.33284	-40.32570	-40.74362	-41.42885	-41.61287	-43.12634	-43.87663	-45.69435
-47.53313	-48.86967	-49.96530	-51.34291	-52.21765	-53.11243	-54.02702	-54.96123
-55.39180	-55.84160	-25.97179	-7.62862	-8.13495	-31.93684	-39.01845	-29.37962
-26.03566	-20.35558	-19.40080	-18.46344	6.77994	16.31389	21.64630	17.28502
25.46112	31.26700	-159.89688	-806.65564	208.29321	-196.35895	-242.39679	-121.46753
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-39.02026	-42.19965	27.42218	6.61414	44.23151	4.47418	-7.14429	-10.71576
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-110.21411	-121.60651	-124.85692	-128.25337	-124.27124	-41.26562	-37.21414	-35.12567
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-55.76038	-23.44528	-163.81613	-152.74020	-138.55792	-126.65149	-88.39908	-72.66663
-5.94611	-14.36520	16.72998	6.01187	34.17148	49.07333	50.56772	-539.56598
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216.77902	191.60699	154.94818	139.11609	140.15128	120.67657	115.87170	115.31421
100.69986	69.49362	51.10596	46.72971	34.78754	3.05841	-11.35635	-24.76328
4.50049	38.08066	30.66983	37.91672	31.20123	22.38718	11.49159	4.37981
-1.92206	-7.46259	-11.98000	-16.52026	-21.86771	-26.19139	-29.49106	-33.59726
-36.41748	-39.25917	-42.12216	-44.74467	-47.12648	-49.26740	-51.16721	-53.08725
-55.28888	-58.29497	-58.96678	-58.61192	-63.50709	-56.39046	-47.20038	-28.61351
-16.58362	-18.69519	-23.96336	-10.41861	-3.16855	-8.48997	-13.82881	-6.63100
-2.58865	-5.62480	26.63022	-132.46475	-209.72139	-219.23282	-218.90741	-165.92740
-212.08722	-204.16687	-185.21783	-124.00308	-52.16513	-63.70798	-93.53268	-82.72241
-165.33939	-174.85229	-186.80722	-167.50717	-103.32126	-124.83450	-131.53987	-125.36629
-92.18768	-126.73257	-130.72617	-143.01106	-133.40489	-107.37468	-103.16110	-85.05017
-40.81667	-31.62184	-31.93779	-12.79054	19.95715	4.31937	-27.97997	-43.39072
-59.60661	-69.96066	-54.57076	-62.86586	-47.30211	-26.86052	-183.48100	-791.21155
-789.40253	-806.33356	478.01990	454.81158	155.60901	-31.53564	-95.62939	-59.24899
-103.37643	-83.12283	-8.50409	101.95468	108.72702	106.93420	100.65787	165.08829
146.33835	77.24753	40.13055	67.39465	101.15753	238.04974	463.43396	356.37149
258.02539	274.92261	197.97055	161.48361	168.85468	205.05475	161.61102	128.44403
99.95108	80.08298	75.67604	67.55025	72.26244	65.42421	51.98892	46.01479

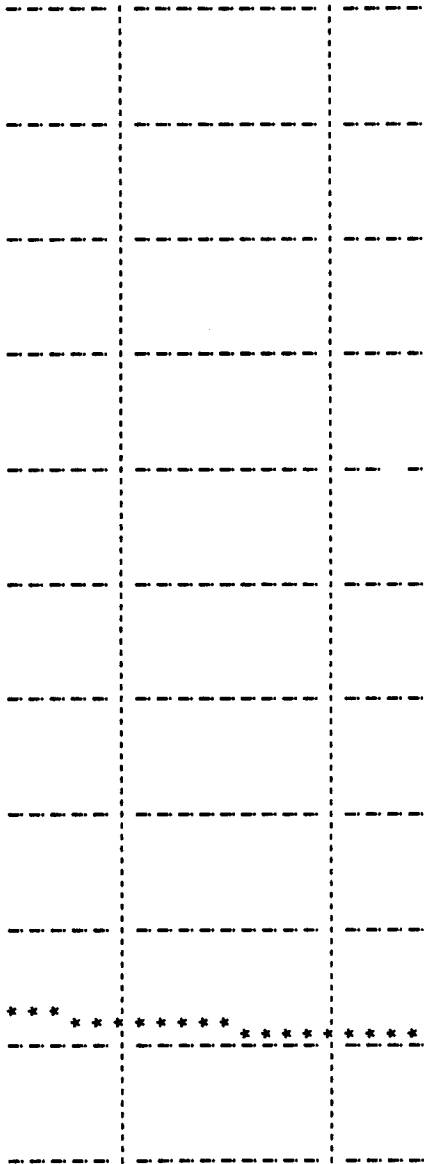
46.68297	41.24883	25.41922	19.48476	9.96741	4.32828	15.14301	10.51132
16.53381	11.86414	8.40738	4.22365	0.96243	-2.31845	-5.35728	-8.41545
-10.70811	-13.28119	-15.87303	-17.96033	-19.80444	-21.92828	-23.54701	-24.92204
-26.57623							

el fichero de resultados (phi y RS) calculados en la fase 5 está almacenado en if8= 5, (primer registro libre: 6)

FUNCION DE TRANSFERENCIA O RESPUESTA IMPULSIONAL phi



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PRINCIPIO DE CALCULO EN LA FASE 6

a =	0.4347E-01	0.3744E-02	-0.3140E-01	0.5521E-03	-0.2241E+00	-0.1577E+00	-0.8307E-01	-0.1438E+00
a =	-0.3102E-01	-0.1028E+00	-0.8330E-01	-0.7318E-01	-0.1294E+00	-0.7550E-01	-0.7484E-01	-0.6431E-01
a =	-0.3860E-01	-0.3603E-01	-0.3999E-01	-0.2946E-01	-0.2677E-01	-0.3228E-01	-0.3205E-01	-0.4042E-01
a =	-0.1508E-01	-0.1854E-01	-0.1779E-01	-0.1791E-01	-0.2245E-01	-0.1449E-01	-0.1383E-01	-0.1640E-01

CUADRO DE VALORES DE phi (función de transferencia o respuesta impulsional)

4.50905	7.78657	6.43380	6.23962	5.05232	3.93039	3.67755	5.00567
3.61704	2.99390	2.84781	3.08237	2.43240	2.47430	2.40295	2.17018
1.55415	1.59193	2.06261	1.89920	1.69249	1.55163	1.91203	2.60948
2.61247	2.36951	1.71292	1.41569	0.94135	0.92640	0.92453	0.92132

norma en l-2 y en el infinito del resto de S: 0.825E+07 0.504E+05
 media de la salida real, id. calculada, y coeficiente de correlación en 878 -1534 : 0.411E+03 0.411E+03 0.8505

RESIDUOS (diferencias S-phi*E)

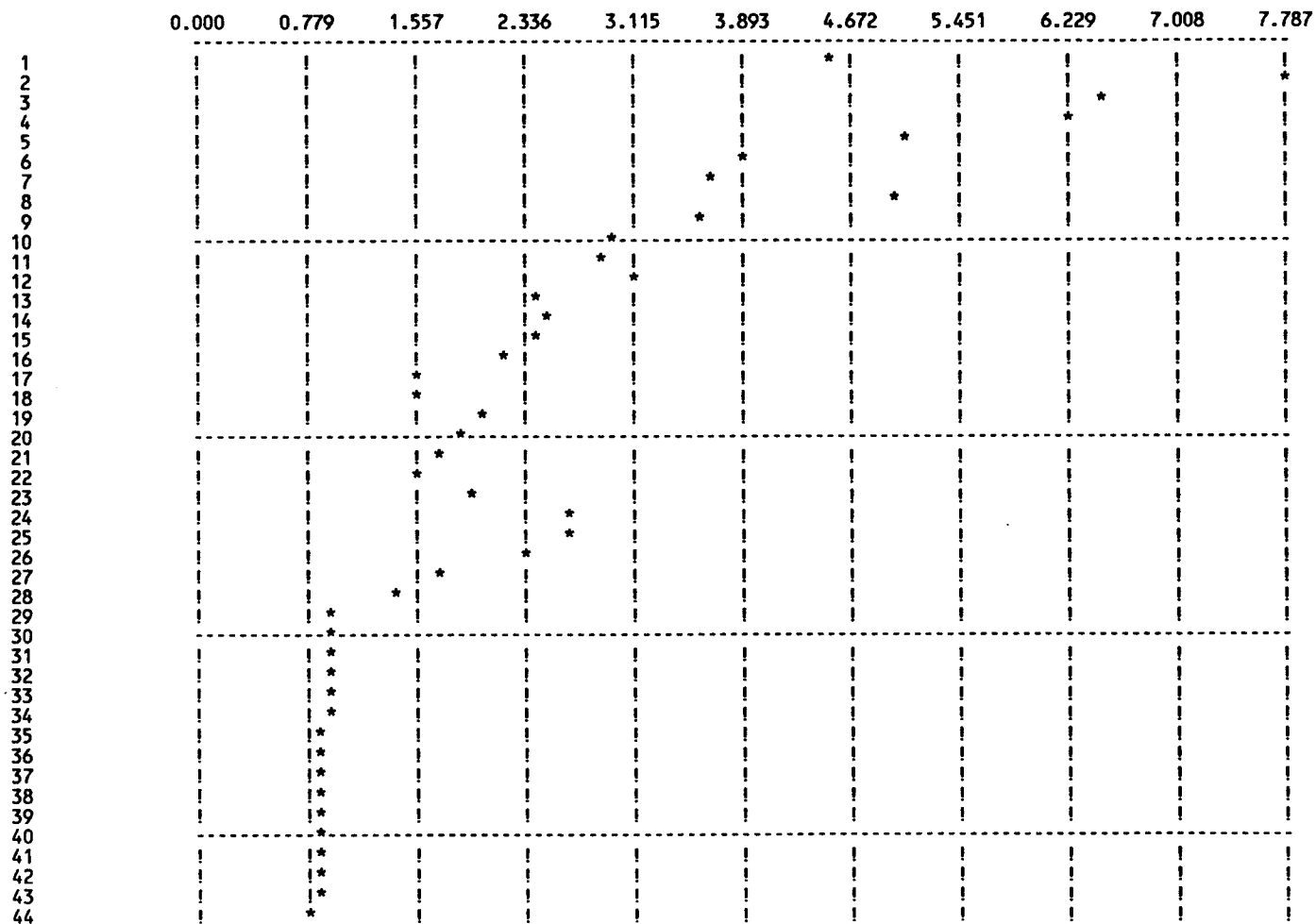
-117.32959	-95.29764	-183.44577	-181.25781	-548.03491	-700.38123	178.40967	-78.04663
-95.33984	-40.56628	13.61993	4.47821	-83.59534	-3.40247	14.70465	-8.21552
-3.84760	31.18311	36.99591	49.70795	44.71118	39.76489	9.80652	-48.13116
-87.37354	-104.01035	-66.56509	-70.84622	-102.63696	-123.11670	-104.78897	12.88266
-587.72150	78.89514	-129.95032	-199.95734	-162.59656	-173.32324	-82.78802	-30.17120
40.69061	132.05194	103.98450	75.08801	-41.00317	-81.34662	-47.98431	6.74017
74.98407	79.59192	51.15692	8.84259	-3.22339	-6.83685	-27.60849	-77.19324
-124.29642	-144.84866	-131.56601	-107.11185	-82.99991	-72.93033	-76.24216	-85.32870
-93.44553	-47.67078	-25.56973	-25.14703	-24.16052	-22.31897	-19.25406	-17.04739
-14.23437	-13.11847	-11.84625	-10.84024	-9.84503	-8.88239	58.51944	81.24744
81.78604	79.38828	73.82224	62.44904	86.81116	89.84778	328.06192	-688.98267
-1023.00354	-1151.04321	-1209.25342	-1062.66235	-1098.86707	-1131.10071	-1126.73059	196.15332
102.77026	-77.64435	-58.64795	-66.65063	-50.54150	60.63025	86.12012	95.05969
108.81409	-626.85742	-76.59314	-103.84344	-167.94153	-166.88904	-106.66266	-105.71307
-53.88782	-14.42712	38.67743	-585.29572	-702.40106	-825.07910	-801.60278	-859.43402
606.63403	32.72369	-134.51245	-129.56952	-121.12012	-113.14856	-141.26605	-92.08578
-56.92267	-64.87067	-67.48975	-53.60693	-24.42023	-19.13025	-22.43134	-20.20880
-24.17273	-30.35672	-43.58600	-71.31512	-84.23752	-90.88687	-76.58109	-61.21362
-37.13089	-22.93839	-16.24060	-11.32071	-12.35214	-13.29044	-14.42447	-15.02771
-15.89508	-16.31628	-21.91641	-33.77588	-27.96167	7.00443	38.49707	50.50565
28.50400	23.66974	81.42712	69.71432	61.15024	-397.99152	-949.90680	-1282.57117
170.08264	-47.53174	-28.55231	49.22644	29.84460	-93.31958	22.88989	-13.95667
-131.62317	-144.74634	-62.82642	-45.52240	-32.91797	-28.85455	28.73236	9.01459
9.02356	57.82373	197.60684	45.03296	45.68600	71.31964	131.73553	125.22357
-459.66901	-597.12939	362.99286	104.89539	164.17017	164.62714	280.85278	268.25220

156.36322	146.00345	130.71802	143.89001	139.26694	143.30954	134.85114	126.59204
117.33670	150.09766	150.73907	144.02487	226.71356	255.28757	183.56891	105.67245
108.95163	213.91791	165.46521	86.97256	52.83429	98.08173	102.92111	92.29471
71.31302	15.69702	-4.08505	32.49866	51.85757	50.41769	61.03827	128.15457
140.56647	166.24176	202.00827	163.64243	117.40579	94.02100	99.32394	110.95334
34.16321	36.83221	72.30307	65.17676	54.36874	86.61679	110.35925	91.25116
115.56085	77.94122	54.63382	52.68497	41.29398	23.47977	12.20087	1.50845
14.37341	50.48810	18.97083	-26.40436	23.76755	52.53873	59.82205	43.54590
60.46896	19.28143	68.62027	85.95297	104.25574	78.37766	62.45761	49.97675
39.21103	44.90259	98.42668	62.95207	13.77188	4.33191	-0.43338	-5.46738
-19.02470	-39.72269	-46.58942	-47.61760	-40.83336	-40.05602	-35.57109	-39.57364
-44.11333	-47.60033	-50.98927	-53.87621	-56.52242	-58.92767	-61.09181	-35.04402
58.26726	34.02591	21.97591	23.82733	26.96036	-112.76897	-214.69693	-185.12271
-168.10741	-124.69751	-81.19238	-58.26212	-80.39554	-116.14285	-164.08731	810.69263
-539.88483	-619.63361	567.03113	-27.48706	-157.60925	-110.64191	-117.82474	-194.43887
-140.66245	-120.25357	-185.96362	-204.10355	-178.06641	-152.54370	-118.56750	-80.52451
-32.21930	-30.22144	-65.47250	-71.30957	-33.60117	17.23883	36.49091	12.66409
-19.48871	-74.60773	-100.43616	-119.83682	-73.69167	3.04068	-32.49617	-62.96141
-52.96368	-56.53310	-60.43578	-53.21367	-46.85852	-43.65643	-38.55133	-38.27808
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-47.17418	-48.51431	-49.61349	-50.99463	-51.87285	-52.77107	-53.68907	-54.62666
-55.06058	-55.51370	-25.64717	-7.80724	-7.80729	-31.62186	-38.70662	-29.07091
-25.73003	-20.05301	-19.10126	-18.16689	7.07353	16.60454	21.93405	17.56989
25.74315	31.54620	-159.62048	-633.55829	35.74042	-206.32977	-231.89227	-180.36407
-102.50464	112.08197	555.76123	-824.02130	-918.27478	-1029.94641	245.45703	77.16516
-28.36322	-67.63159	-63.31738	-32.97205	36.16870	230.02118	238.49200	-567.85028
-722.44031	1.20691	-133.19946	-196.56921	-187.99860	-115.49982	-122.06610	-87.66180
-38.09998	-22.68243	16.99927	14.16876	41.76221	-9.97021	-7.31879	-3.90054
-12.29687	-35.67361	-64.01743	-55.05292	-59.83344	-51.22528	-40.37872	-90.16824
-126.42038	-118.40549	-84.11334	-58.13000	-43.94766	-66.13022	-82.28906	-103.14372
-110.82098	-119.32184	-124.42201	-127.68135	-123.80124	-40.76080	-36.71436	-34.63089
-32.57611	-28.98053	-26.19766	-17.18497	-2.37341	-9.38406	-10.63396	-9.55670
21.56775	-83.42734	-159.83249	-123.59277	-181.98090	-188.86557	-69.44095	-70.03192
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16.59781	-31.14432	5.51324	14.17578	40.48212	44.34958	51.91177	-482.79425
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234.01239	187.98370	148.73538	142.65314	136.12204	121.47305	118.96713	117.02698
100.58350	67.44708	53.42523	45.53043	36.83405	13.83463	-19.16370	-29.70035
7.73074	34.82043	34.52991	38.84624	31.73856	22.73839	11.88390	4.78494
-1.52098	-7.06552	-11.58690	-16.13109	-21.48244	-25.80997	-29.11345	-33.22343
-36.04738	-38.89278	-41.75943	-44.38557	-46.77097	-48.91545	-50.81877	-52.74229
-54.94737	-57.95688	-58.63208	-58.28056	-63.17904	-56.06570	-46.87886	-28.29521
-16.26849	-18.38321	-23.65453	-10.11284	-2.86584	-8.19031	-13.53214	-6.33728
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-72.20914	-71.21460	-19.84598	104.31030	106.92651	95.67303	112.46304	167.22876
144.73108	69.41241	48.48825	60.67166	136.13693	245.12024	427.47754	346.22244
260.81305	269.93295	224.18207	149.73804	164.55545	210.40329	163.98615	126.84415
100.68762	80.10623	74.07991	69.89105	72.94907	65.46744	50.96513	47.75391
45.84290	42.79001	31.66849	13.92264	8.24916	6.72000	12.95866	13.35573
16.73241	12.31248	8.69882	4.56627	1.30164	-1.98265	-5.02484	-8.08633
-10.38228	-12.95862	-15.55370	-17.64418	-19.49146	-21.61842	-23.24026	-24.61835
-26.27559							

el fichero de resultados (phi y RS) calculados en la fase 6 está almacenado en if8= 6, (primer registro libre: 7)

FUNCION DE TRANSFERENCIA O RESPUESTA IMPULSIONAL phi



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*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*
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*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*
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*	*	*	*	*	*	*	*	*	*	*
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*	*	*	*	*	*	*	*	*	*	*
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*	*	*	*	*	*	*	*	*	*	*

MODIFICACION DEL INTERVALO DE RECONSTITUCION

jnre= 33, jmre=1900, maxpre=1900

CUADRO DE VALORES DE phi (función de transferencia o respuesta impulsional)

4.50905	7.78657	6.43380	6.23962	5.05232	3.93039	3.67755	5.00567
3.61704	2.99390	2.84781	3.08237	2.43240	2.47430	2.40295	2.17018
1.55415	1.59193	2.06261	1.89920	1.69249	1.55163	1.91203	2.60948
2.61247	2.36951	1.71292	1.41569	0.94135	0.92640	0.92453	0.92132

norma en l-2 y en el infinito del resto de S: 0.399E+09 0.631E+06
 media de la salida real, id. calculada, y coeficiente de correlation en 33 -1900: 0.139E+03 0.456E+03 0.0872

RESIDUOS (diferencias S-phi*E)

-224.33537	-228.75459	-220.17323	-210.06808	-172.60666	-166.65547	-149.92342	-139.95055
-121.64179	-119.55634	-127.04012	-120.06133	-117.01601	-113.32864	-120.65282	-138.45804
-140.96426	-140.22762	-124.17276	-112.75328	-92.81896	-86.20757	-81.03358	-78.24370
-77.49600	-76.79736	-76.05720	-75.29663	-74.54366	-73.79823	-73.06024	-72.32964
-71.60635	-70.89029	-70.18138	-69.47957	-68.78477	-68.09692	-67.41595	-66.74179
-66.07437	-65.41364	-64.75950	-64.11190	-63.47078	-62.83608	-62.20772	-61.58564
-60.96979	-60.36009	-59.75649	-59.15893	-58.56734	-57.98166	-57.40185	-56.82783
-56.25955	-55.69696	-55.13999	-112.03384	-413.64102	-697.77917	-698.52032	-637.85834
-626.86322	-790.29388	-890.25696	-877.46796	-847.33582	-742.36133	-655.36908	-668.52094
-657.68396	-554.28076	-567.59534	-596.49463	-521.45581	-475.90387	-483.98700	-464.24292
-413.77777	-394.08179	-410.92615	-467.98895	-461.65393	-429.92114	-378.48914	-365.60052
-359.09933	-337.09525	-310.33105	-283.45020	-267.16614	-239.86209	-227.32178	-220.08572
-216.40929	-222.51337	-220.21829	-215.41431	-205.47360	-199.97482	-192.30551	-190.31432
-188.50223	-186.69156	-184.82465	-182.97639	-181.14664	-179.33517	-177.54182	-175.76640
-174.00874	-172.26866	-170.54597	-168.84052	-167.15211	-165.48059	-163.82579	-162.18753
-160.56566	-223.89027	-303.13446	-355.76996	-377.11472	-342.25433	-313.59387	-287.10641
-290.59711	-434.08273	-626.05249	-903.74695	-1098.61755	-973.67017	-1057.85229	-1105.66406
-1130.65259	-1114.91577	-1070.97021	-915.26508	-831.60602	-825.98419	-778.54645	-836.91174
-884.88843	-829.20038	-775.43286	-710.41516	-655.89282	-642.28113	-623.07043	-571.57684
-580.29016	-741.01300	-879.00287	-788.39288	-751.60040	-675.01196	-616.61279	-564.59326
-572.08612	-519.26556	-462.60999	-440.06161	-431.53198	-418.28607	-434.25021	-430.28488
-414.59534	-377.26550	-367.39511	-366.37323	-357.79877	-348.89075	-341.92508	-349.53525
-367.04996	-364.23212	-354.23212	-332.13348	-320.59964	-303.90085	-300.69968	-297.90936
-295.10718	-292.15613	-289.23456	-286.34222	-283.47879	-280.64401	-277.83759	-275.05920
-330.15967	-440.41452	-773.79871	-966.78955	-855.29175	-806.60510	-703.63373	-639.01935
-622.62933	-679.19598	-744.62488	-826.58496	-757.94611	-754.11853	-662.51862	-615.91345
-587.55322	-611.27271	-521.22418	-502.94104	-521.38953	-512.14001	-473.62967	-478.23721
-508.48300	-541.06018	-503.32065	-472.26199	-433.47903	-397.61761	-355.65567	-347.17947
-358.68344	-382.92401	-380.20773	-368.10727	-340.20551	-326.08408	-305.21173	-301.94794
-299.21127	-296.45010	-293.48560	-290.55075	-287.64523	-284.76880	-281.92111	-279.10193
-276.31088	-273.54779	-270.81232	-268.10419	-265.42316	-262.76892	-260.14124	-257.53983

-254.96440	-252.41476	-249.89061	-247.39171	-244.91782	-242.46861	-240.04395	-237.64351
-235.26707	-232.91441	-230.58527	-228.27942	-225.99661	-223.73665	-243.33374	-555.07397
-607.47711	-562.43896	-522.80872	-457.34756	-417.20871	-443.97775	-441.32748	-383.82867
-360.52832	-360.80020	-347.77777	-328.87091	-326.16458	-315.96664	-290.94321	-272.94629
-284.84760	-291.67322	-279.71371	-268.34753	-272.37448	-299.46671	-317.18585	-337.01007
-813.73383	-1149.45654	-996.23926	-963.16772	-838.27490	-781.48077	-810.85980	-913.44720
-757.66681	-660.12982	-626.66553	-635.50818	-668.90759	-752.04211	-768.38544	-776.04828
-709.94879	-653.58490	-675.54175	-657.63647	-604.75677	-559.61206	-594.78864	-662.76764
-643.61816	-603.47357	-526.06494	-481.80365	-425.00217	-409.13251	-405.12268	-386.53299
-376.30249	-364.06778	-363.51166	-374.75340	-380.36304	-380.66293	-369.71985	-353.08295
-332.27057	-316.37024	-386.55737	-436.51071	-409.96835	-403.70920	-380.10992	-357.62347
-350.32330	-370.62378	-343.57291	-329.90039	-324.57574	-325.91736	-311.86017	-309.89661
-379.70761	-626.34570	-736.06409	-719.59473	-764.44940	-696.75720	-625.13672	-616.54602
-636.01215	-563.36829	-543.52795	-528.71332	-498.11932	-456.50089	-448.09259	-504.02353
-528.64264	-477.95529	-508.81744	-570.51550	-570.19513	-678.53510	-916.27417	-954.03699
-909.76636	-867.38593	-905.03815	-948.91473	-958.73016	-920.53326	-829.62231	-729.46625
-702.50708	-715.72168	-665.31439	-738.39746	-810.98993	-753.09021	-720.70630	-687.90967
-660.40204	-628.55084	-637.58551	-587.14258	-602.33118	-606.67938	-589.24817	-532.37994
-507.92291	-501.53986	-487.31479	-462.95340	-445.07227	-438.39795	-413.80157	-394.76593
-386.16861	-390.62036	-406.39316	-403.16132	-393.22195	-371.96121	-360.57248	-344.36673
-340.77164	-337.56625	-334.35580	-331.01224	-327.70215	-324.42511	-321.18088	-317.96906
-314.78940	-311.64151	-308.52509	-305.43985	-302.38544	-299.36160	-305.74680	-309.80037
-303.85257	-306.45084	-305.39914	-308.45657	-505.93280	-642.21442	-576.52081	-561.17719
-506.38477	-453.59137	-489.95483	-576.91553	-498.67560	-465.54370	-453.81192	-522.22858
-535.09589	-527.09851	-499.86420	-479.51917	-464.74527	-521.44830	-577.76569	-527.83752
-493.25446	-620.93451	-789.88312	-794.46033	-779.76917	-701.03827	-603.05402	-550.74915
-577.30798	-548.87268	-504.56256	-479.49197	-470.45486	-447.53351	-445.34219	-443.52954
-424.07245	-385.81702	-374.94565	-388.77676	-392.22086	-377.13589	-360.97287	-359.29410
-380.17276	-380.90369	-369.63245	-341.34738	-320.79761	-298.21136	-289.65604	-286.95346
-284.38153	-467.74170	-693.82953	-749.90924	-812.65320	-927.47876	-957.02045	-945.49268
-993.36725	-886.41003	-810.90723	-885.74445	-885.19604	-1023.98541	-1060.62122	-959.06921
-891.80823	-799.92633	-902.54572	-976.96088	-1017.54877	-986.51660	-907.36078	-862.37128
-860.97876	-872.96912	-823.71881	-786.16077	-740.34399	-703.37592	-661.35236	-634.59949
-589.25873	-560.77478	-548.56140	-547.03888	-555.71924	-532.25061	-510.42416	-470.20139
-461.58688	-465.02417	-470.51953	-471.60950	-449.56390	-431.18140	-403.33813	-392.58023
-381.61880	-377.91232	-374.27765	-370.62939	-366.92310	-363.25388	-359.62137	-356.02518
-352.46494	-348.94028	-345.45087	-341.99637	-338.57639	-335.19061	-331.83871	-328.52036
-325.23514	-321.98279	-318.76297	-315.57532	-312.41956	-309.29538	-306.20245	-303.14044
-300.10904	-297.10794	-294.13687	-291.19550	-478.33987	-613.60461	-553.73132	-542.72119
-489.87915	-439.82053	-426.42212	-479.68805	-418.47055	-389.54495	-380.75378	-388.03333
-358.05569	-357.26675	-351.72931	-484.33472	-597.75220	-579.96021	-580.17065	-537.23163
-486.86990	-460.97693	-513.61359	-505.13940	-469.66479	-446.58121	-424.70096	-389.67236
-362.11069	-418.87909	-508.14932	-504.25049	-478.80243	-473.02219	-542.92090	-590.10260
-596.18762	-619.73474	-588.00293	-559.60767	-630.15521	-795.23358	-783.34186	-720.89771
-669.41364	-608.55408	-548.55157	-576.02008	-570.99963	-513.17340	-472.98041	-475.43961
-484.38220	-472.11139	-463.29938	-438.24734	-412.81339	-401.86331	-406.69247	-410.46759
-385.17386	-367.66934	-354.46985	-372.32315	-381.67334	-373.52438	-350.88788	-327.24173
-307.78006	-293.86069	-290.62192	-445.68509	-661.53357	-687.01282	-646.16449	-597.33624

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-527.88947	-490.39832	-528.33514	-507.71725	-525.04669	-556.60217	-682.36493	-1024.62195
-1243.26172	-1216.16418	-1142.15710	-1043.22070	-914.00189	-931.76312	-945.68011	-861.36890
-835.27600	-885.83551	-872.34644	-850.61127	-787.63275	-726.49841	-662.94293	-618.55359
-577.32001	-686.68463	-754.53058	-718.19678	-700.83630	-706.04755	-715.38306	-705.27454
-680.22717	-596.17828	-541.37457	-498.31302	-481.18713	-458.10104	-457.11542	-462.32108
-451.67856	-429.83420	-415.85767	-417.71298	-402.44882	-394.33792	-387.59253	-392.30963
-404.71808	-401.57370	-393.04382	-374.63852	-364.34128	-349.76077	-345.96002	-342.37976
-339.09067	-335.70441	-332.35117	-329.02765	-325.73740	-322.48004	-319.25522	-316.06265
-312.90204	-309.77304	-306.67529	-426.34482	-512.52289	-570.22540	-632.85699	-803.11829
-936.12335	-830.23389	-829.14844	-792.87744	-795.50195	-724.05554	-780.28528	-1027.98010
-1368.08838	-1318.76855	-1422.46350	-1340.15833	-1176.96643	-1126.80737	-1422.80835	-1696.86023
-1696.42993	-1643.05005	-1541.51050	-1340.12964	-1243.43945	-1306.30969	-1280.83533	-1084.27051
-1000.74701	-995.78705	-947.98157	-866.75403	-852.61218	-842.55878	-1236.43030	-1490.29102
-1388.99060	-1346.38855	-1180.60425	-1011.66412	-966.49408	-1124.90979	-1024.98437	-952.61688
-885.41919	-848.79047	-746.97723	-719.72113	-708.63806	-684.40570	-626.98724	-625.28497
-660.70868	-641.87225	-619.37598	-602.56708	-628.73816	-683.82556	-679.47815	-654.11121
-593.36310	-563.43903	-518.38928	-512.73163	-508.23272	-503.67178	-498.63507	-493.64877
-488.71225	-483.82513	-478.98685	-474.19702	-469.45505	-464.76050	-460.11292	-455.51178
-455.01480	-453.45502	-447.77307	-443.17850	-677.48029	-921.75073	-900.07520	-864.09558
-934.16864	-1002.92236	-1063.92395	-1195.67212	-1079.54138	-969.42810	-1433.60217	-1909.61023
-1733.89917	-1667.94910	-1477.79370	-1294.41846	-1183.61926	-1319.73987	-1185.16907	-1074.54053
-1006.18878	-1234.31848	-1342.45691	-1305.17517	-1297.82629	-1182.42200	-1011.01733	-1114.91748
-1387.62292	-1322.51685	-1215.82703	-1286.89783	-1408.91150	-1398.82983	-1482.41638	-1505.56360
-1350.44751	-1207.32336	-1171.51111	-1090.53552	-1011.34869	-1000.08203	-986.79926	-924.23767
-928.69769	-936.20374	-906.06860	-825.19263	-792.83026	-784.02960	-788.83728	-777.21063
-767.33020	-756.10535	-753.92371	-730.13812	-711.26886	-696.39124	-686.16058	-657.32056
-632.86316	-611.93329	-594.21021	-580.68713	-574.90668	-117.32959	-95.29764	-183.44577
-181.25781	-548.03491	-700.38123	178.40967	-78.04663	-95.33984	-40.56628	13.61993
4.47821	-83.59534	-3.40247	14.70465	-8.21552	-3.84760	31.18311	36.99591
49.70795	44.71118	39.76489	9.80652	-48.13116	-87.37354	-104.01035	-66.56509
-70.84622	-102.63696	-123.11670	-104.78897	12.88266	-587.72150	78.89514	-129.95032
-199.95734	-162.59656	-173.32324	-82.78802	-30.17120	40.69061	132.05194	103.98450
75.08801	-41.00317	-81.34662	-47.98431	-6.74017	74.98407	79.59192	51.15692
8.84259	-3.22339	-6.83685	-27.60849	-77.19324	-124.29642	-144.84866	-131.56601
-107.11185	-82.99991	-72.93033	-76.24216	-85.32870	-93.44553	-47.67078	-25.56973
-25.14703	-24.16052	-22.31897	-19.25406	-17.04739	-14.23437	-13.11847	-11.84625
-10.84024	-9.84503	-8.88239	58.51944	81.24744	81.78604	79.38828	73.82224
62.44904	86.81116	89.84778	328.06192	-688.98267	-1023.00354	-1151.04321	-1209.25342
-1062.66235	-1098.86707	-1131.10071	-1126.73059	196.15332	102.77026	-77.64435	-58.64795
-66.65063	-50.54150	60.63025	86.12012	95.05969	108.81409	-626.85742	-76.59314
-103.84344	-167.94153	-166.88904	-106.66266	-105.71307	-53.88782	-14.42712	38.67743
-585.29572	-702.40106	-825.07910	-801.60278	-859.43402	606.63403	32.72369	-134.51245
-129.56952	-121.12012	-113.14856	-141.26605	-92.08578	-56.92267	-64.87067	-67.48975
-53.60693	-24.42023	-19.13025	-22.43134	-20.20880	-24.17273	-30.35672	-43.58600
-71.31512	-84.23752	-90.88687	-76.58109	-61.21362	-37.13089	-22.93839	-16.24060
-11.32071	-12.35214	-13.29044	-14.42447	-15.02771	-15.89508	-16.31628	-21.91641
-33.77588	-27.96167	7.00443	38.49707	50.50565	28.50400	23.66974	81.42712
69.71432	61.15024	-397.99152	-949.90680	-1282.57117	170.08264	-47.53174	-28.55231

49.22644	29.84460	-93.31958	22.88989	-13.95667	-131.62317	-144.74634	-62.82642
-45.52240	-32.91797	-28.85455	28.73236	9.01459	9.02356	57.82373	197.60684
45.03296	45.68600	71.31964	131.73553	125.22357	-459.66901	-597.12939	362.99286
104.89539	164.17017	164.62714	280.85278	268.25220	156.36322	146.00345	130.71802
143.89001	139.26694	143.30954	134.85114	126.59204	117.33670	150.09766	150.73907
144.02487	226.71356	255.28757	183.56891	105.67245	108.95163	213.91791	165.46521
86.97256	52.83429	98.08173	102.92111	92.29471	71.31302	15.69702	-4.08505
32.49866	51.85757	50.41769	61.03827	128.15457	140.56647	166.24176	202.00827
163.64243	117.40579	94.02100	99.32394	110.95334	34.16321	36.83221	72.30307
65.17676	54.36874	86.61679	110.35925	91.25116	115.56085	77.94122	54.63382
52.68497	41.29398	23.47977	12.20087	1.50845	14.37341	50.48810	18.97083
-26.40436	23.76755	52.53873	59.82205	43.54590	60.46896	19.28143	68.62027
85.95297	104.25574	78.37766	62.45761	49.97675	39.21103	44.90259	98.42668
62.95207	13.77188	4.33191	-0.43338	-5.46738	-19.02470	-39.72269	-46.58942
-47.61760	-40.83336	-40.05602	-35.57109	-39.57364	-44.11333	-47.60033	-50.98927
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23.82733	26.96036	-112.76897	-214.69693	-185.12271	-168.10741	-124.69751	-81.19238
-58.26212	-80.39554	-116.14285	-164.08731	810.69263	-539.88483	-619.63361	567.03113
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-7.30724	-7.81679	-31.62186	-38.70662	-29.07091	-25.73003	-20.05301	-19.10126
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-196.56921	-187.99860	-115.49982	-122.06610	-87.66180	-38.09998	-22.68243	16.99927
14.16876	41.76221	-9.97021	-7.31879	-3.90054	-12.29687	-35.67361	-64.01743
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123.38324	217.72681	316.31711	247.43738	248.92725	234.01239	187.98370	148.73538
142.65314	136.12204	121.47305	118.96713	117.02698	100.58350	67.44708	53.42523
45.53043	36.83405	13.83463	-19.16370	-29.70035	7.73074	34.82043	34.52991
38.84624	31.73856	22.73839	11.88390	4.78494	-1.52098	-7.06552	-11.58690
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104.31030	106.92651	95.67303	112.46304	167.22876	144.73108	69.41241	48.48825
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149.73804	164.55545	210.40329	163.98615	126.84415	100.68762	80.10623	74.07991
69.89105	72.94907	65.46744	50.96513	47.75391	45.84290	42.79001	31.66849
13.92264	8.24916	6.72000	12.95866	13.35573	16.73241	12.31248	8.69882
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SUMA DE ϕ = 166.20869, calculada con 171 términos exponenciales