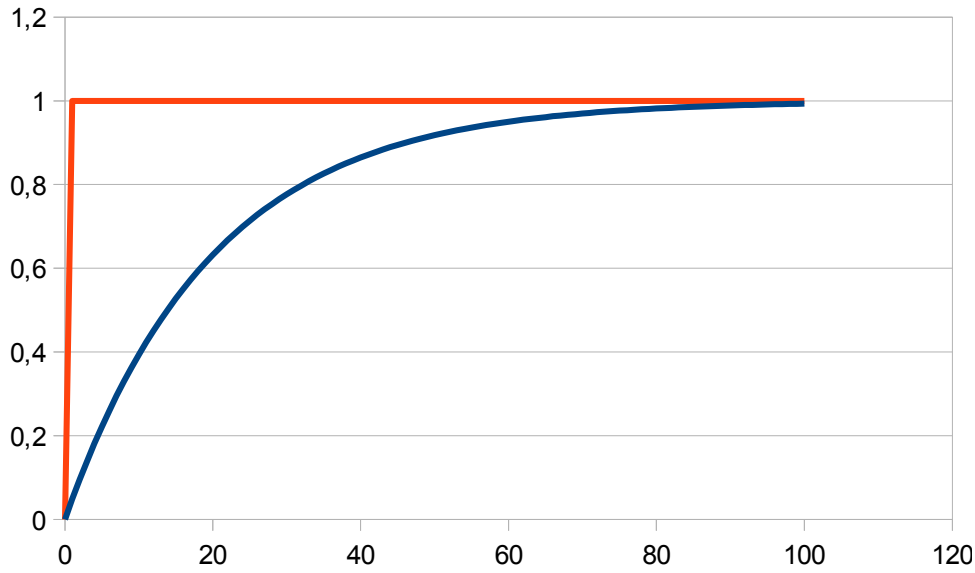
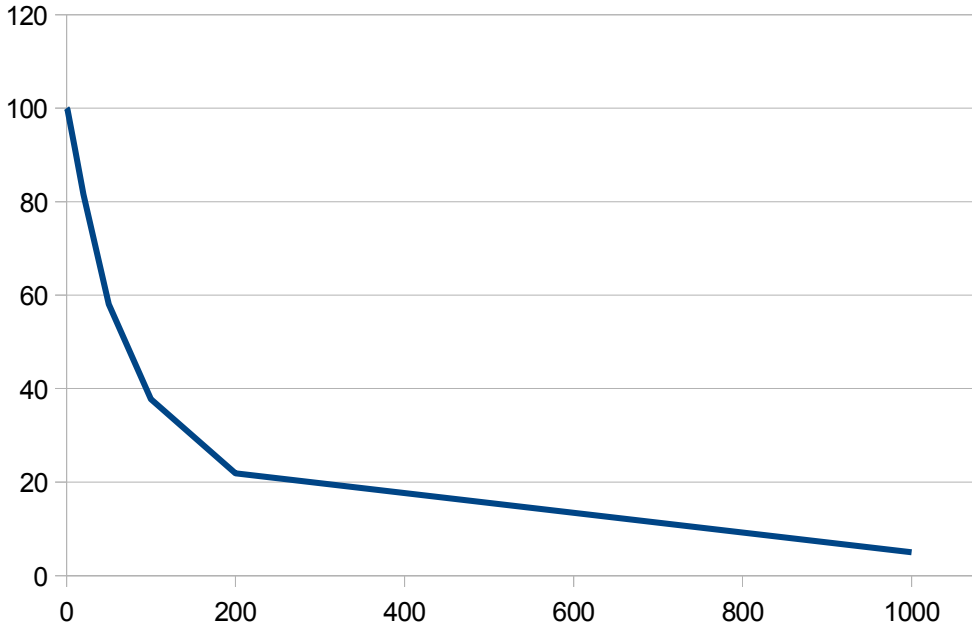
s(t): Weg aus der Höhle = Einheitssprung, h(t) : e-Funktion, analog der Aufladlad Kondensators, hier mit T=20 als Zeitkonstanten 1-exp(-t/T), simuliert die Trägheit Höhlengleichnis

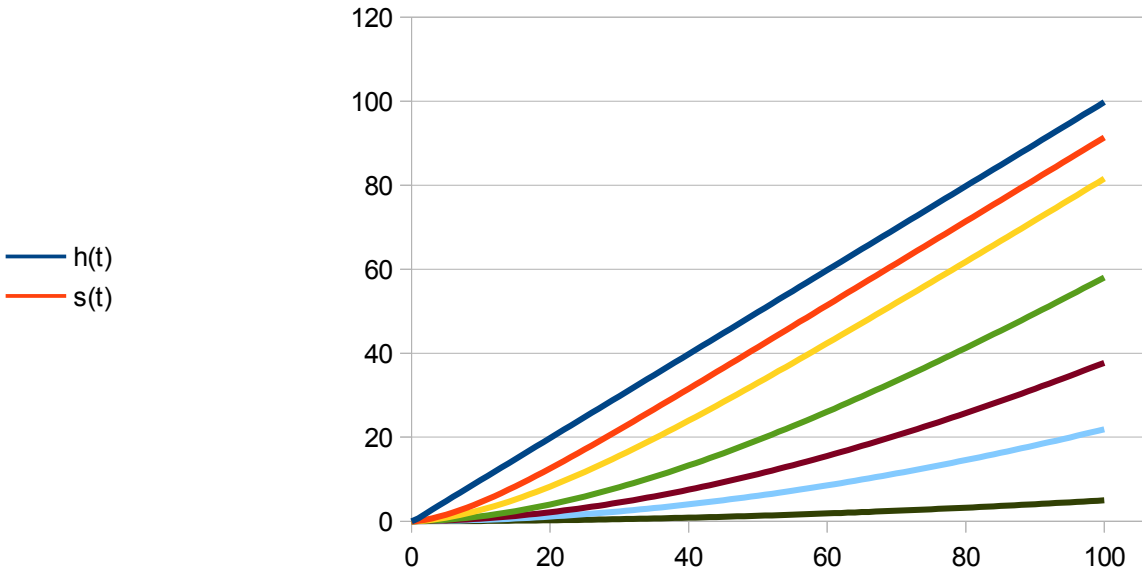


Die erreichte Erkenntnis in am Ende des simulierten Zeitbereichs als Funktion de Zeitkonstanten von h(t), die der Trägheit beschreibt

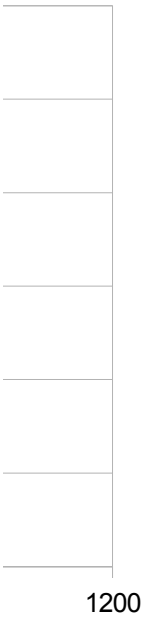


ung eines
: im

Die erreichte Erkenntnis als Funktion der Zeit, abhängig von der Ze



er



Abzisse und Ordinate sind nicht als Prozentwerte, etwa der Lebenszeit d
verstehen, es wurden lediglich 100 samples im Zeitbereich zur Simulatio
sind wirklich rein zufällig …

```
@Test
    public final void eFunction() {
        final Transferfunction transferfunction = new Platc
        for (Double result : transferfunction.f(SampleUtil.
            System.out.println(result.toString().replace('.
  }

 }
```

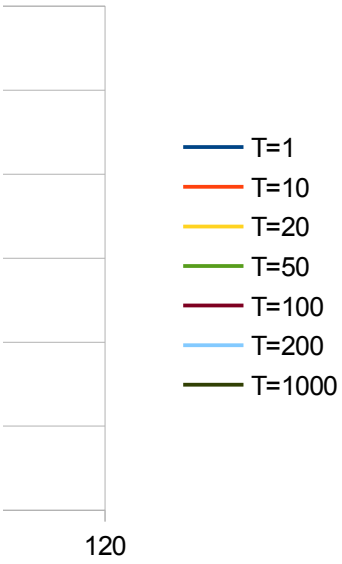
```
public class PlatonTransferfunctionImpl implements Transfe

    private final RealFunction s;
    private final RealFunction h;
```

```
    public PlatonTransferfunctionImpl(final RealFunction s,
        this.s=s;
        this.h=h;
    }

    @Override
    public final Double[] f(final Double[] samples) {
        double result=0;
        final Double results[] = new Double[samples.length]
        results[0]=0D;
        for(int i=1; i<= 100; i++){
            result+= (h.f(samples[i]) -h.f(samples[i-1]))*s
            results[i]=result;
        }
        return results;
    }
}
```

itkonstanten in h(t)



oder der Erkenntnis zu
on verwendet. Analogien

```
onTransferfunctionImpl(new UnitStep(), new EFunction(20,1));
 timeSamples(0, 100, 100))) {
', ','));
```

```
rfunction   {
```

```
, final RealFunction h) {
```

```
];
```

```
.f(samples[i-1]) + s.f(samples[i])*h.f(samples[i]);
```

Messwerte

	T=1	T=10	T=20	T=50	T=100	T=200
0	0	0	0	0	0	0
1	0,632120559	0,095162582	0,048770575	0,019801327	0,009950166	0,004987521
2	1,729329434	0,362538494	0,190325164	0,078421122	0,039602653	0,019900333
3	2,76509058	0,699632806	0,373746629	0,155681494	0,07891026	0,039726287
4	3,778246371	1,099810934	0,596993099	0,251213334	0,127776915	0,06444088
5	4,783086116	1,557069661	0,858122286	0,364654845	0,186107505	0,094019729
6	5,784866558	2,065977048	1,155286628	0,495651389	0,253807862	0,128438574
7	6,785521546	2,621618077	1,486728669	0,643855355	0,330784756	0,167673275
8	7,785762503	3,219545452	1,850776667	0,808926013	0,416945883	0,211699813
9	8,785851146	3,855735097	2,24584041	0,990529379	0,512199859	0,260494289
10	9,785883756	4,526545874	2,670407242	1,188338084	0,616456208	0,314032922
11	10,78589575	5,228683148	3,123038281	1,402031241	0,729625356	0,37229205
12	11,78590017	5,959165808	3,602364819	1,631294317	0,851618618	0,435248131
13	12,78590179	6,715296434	4,107084902	1,875819007	0,982348192	0,502877738
14	13,78590239	7,494634299	4,635960071	2,13530311	1,121727153	0,575157561
15	14,78590261	8,294970943	5,187812269	2,40945041	1,269669435	0,652064409
16	15,78590269	9,114308067	5,761520894	2,697970556	1,426089834	0,733575202
17	16,78590272	9,950837537	6,356019994	3,000578948	1,590903989	0,81966698
18	17,78590273	10,80292328	6,970295606	3,316996618	1,764028383	0,910316894
19	18,78590273	11,66908493	7,603383219	3,646950126	1,945380327	1,00550221
20	19,78590273	12,54798299	8,25436536	3,990171443	2,134877954	1,105200308
21	20,78590273	13,43840541	8,922369303	4,34639785	2,332440216	1,209388681
22	21,78590273	14,33925553	9,606564885	4,715371827	2,537986866	1,318044933
23	22,78590273	15,249541	10,30616243	5,096840957	2,751438459	1,431146781
24	23,78590273	16,16836393	11,02041078	5,490557819	2,972716339	1,548672051
25	24,78590273	17,09491189	11,74859539	5,896279892	3,201742634	1,670598683
26	25,78590273	18,02844973	12,4900366	6,313769455	3,438440245	1,796904723
27	26,78590273	18,96831228	13,24408788	6,742793499	3,682732843	1,927568331
28	27,78590273	19,91389767	14,01013421	7,183123623	3,934544854	2,062567772
29	28,78590273	20,86466129	14,7875906	7,634535954	4,19380146	2,201881421
30	29,78590273	21,82011038	15,57590056	8,096811048	4,460428586	2,345487761
31	30,78590273	22,77979904	16,37453478	8,569733809	4,734352895	2,493365383
32	31,78590273	23,74332384	17,18298971	9,053093399	5,015501777	2,645492982
33	32,78590273	24,7103197	18,00078642	9,546683154	5,303803347	2,801849363
34	33,78590273	25,68045633	18,82746928	10,0503005	5,599186435	2,962413434
35	34,78590273	26,65343484	19,66260491	10,56374689	5,901580578	3,127164209
36	35,78590273	27,62898477	20,50578108	11,08682768	6,210916016	3,296080807
37	36,78590273	28,60686144	21,35660564	11,61935211	6,527123681	3,469142451
38	37,78590273	29,58684343	22,21470556	12,16113317	6,850135193	3,646328467
39	38,78590273	30,56873038	23,07972604	12,71198757	7,179882853	3,827618284
40	39,78590273	31,55234101	23,95132954	13,27173565	7,516299635	4,012991436
41	40,78590273	32,5375113	24,82919502	13,84020131	7,859319181	4,202427557
42	41,78590273	33,52409282	25,71301707	14,41721192	8,208875792	4,395906381
43	42,78590273	34,51195128	26,60250518	15,00259828	8,564904422	4,593407747
44	43,78590273	35,50096516	27,49738302	15,59619453	8,927340675	4,794911591
45	44,78590273	36,4910245	28,39738773	16,19783813	9,296120792	5,000397951
46	45,78590273	37,48202983	29,30226927	16,8073697	9,671181653	5,209846965
47	46,78590273	38,47389111	30,21178979	17,42463307	10,05246076	5,423238868
48	47,78590273	39,46652689	31,12572304	18,04947514	10,43989625	5,640553996
49	48,78590273	40,45986347	32,04385382	18,68174583	10,83342685	5,86177278
50	49,78590273	41,45383416	32,96597741	19,32129804	11,23299192	6,086875753
51	50,78590273	42,44837862	33,89189908	19,9679876	11,63853143	6,31584354

52	51,78590273	43,44344223	34,82143359	20,62167318	12,04998591	6,548656866
53	52,78590273	44,43897561	35,75440474	21,28221624	12,46729652	6,785296552
54	53,78590273	45,43493404	36,69064493	21,949481	12,89040498	7,025743513
55	54,78590273	46,43127708	37,62999472	22,62333436	13,31925361	7,269978761
56	55,78590273	47,42796813	38,57230245	23,30364585	13,7537853	7,517983401
57	56,78590273	48,42497406	39,51742388	23,9902876	14,19394348	7,769738634
58	57,78590273	49,42226491	40,46522176	24,68313426	14,63967219	8,025225753
59	58,78590273	50,41981358	41,41556556	25,38206297	15,09091599	8,284426146
60	59,78590273	51,41759552	42,36833113	26,08695328	15,54762	8,547321292
61	60,78590273	52,41558854	43,32340035	26,79768716	16,0097299	8,813892764
62	61,78590273	53,41377254	44,28066087	27,51414889	16,47719189	9,084122226
63	62,78590273	54,41212936	45,24000582	28,23622506	16,94995273	9,357991434
64	63,78590273	55,41064255	46,20133354	28,96380448	17,42795968	9,635482234
65	64,78590273	56,40929723	47,16454733	29,6967782	17,91116055	9,916576564
66	65,78590273	57,40807994	48,1295552	30,43503939	18,39950366	10,20125645
67	66,78590273	58,40697848	49,09626966	31,17848335	18,89293784	10,48950401
68	67,78590273	59,40598184	50,06460748	31,92700747	19,39141243	10,78130145
69	68,78590273	60,40508005	51,03448947	32,68051114	19,89487728	11,07663107
70	69,78590273	61,40426407	52,00584034	33,43889576	20,40328275	11,37547524
71	70,78590273	62,40352574	52,97858845	34,20206469	20,91657965	11,67781645
72	71,78590273	63,40285767	53,95266564	34,96992319	21,43471934	11,98363724
73	72,78590273	64,40225318	54,92800711	35,7423784	21,95765362	12,29292026
74	73,78590273	65,40170621	55,90455118	36,5193393	22,48533477	12,60564825
75	74,78590273	66,4012113	56,88223922	37,30071667	23,01771558	12,92180402
76	75,78590273	67,40076348	57,86101542	38,08642305	23,55474928	13,24137048
77	76,78590273	68,40035828	58,84082672	38,87637274	24,09638957	13,56433062
78	77,78590273	69,39999163	59,82162263	39,6704817	24,64259062	13,89066751
79	78,78590273	70,39965988	60,80335514	40,46866757	25,19330704	14,2203643
80	79,78590273	71,3993597	61,78597856	41,27084963	25,74849391	14,55340425
81	80,78590273	72,39908809	62,76944945	42,07694875	26,30810674	14,88977067
82	81,78590273	73,39884232	63,75372648	42,88688737	26,8721015	15,22944699
83	82,78590273	74,39861994	64,73877032	43,70058945	27,44043458	15,57241667
84	83,78590273	75,39841872	65,72454358	44,51798048	28,01306282	15,91866332
85	84,78590273	76,39823665	66,71101069	45,3389874	28,58994348	16,26817056
86	85,78590273	77,39807191	67,69813781	46,16353863	29,17103424	16,62092216
87	86,78590273	78,39792284	68,68589274	46,99156398	29,75629323	16,97690192
88	87,78590273	79,39778796	69,67424487	47,82299465	30,34567895	17,33609375
89	88,78590273	80,39766592	70,66316508	48,65776322	30,93915036	17,69848162
90	89,78590273	81,39755548	71,65262565	49,49580359	31,53666679	18,06404959
91	90,78590273	82,39745556	72,64260024	50,33705098	32,13818801	18,4327818
92	91,78590273	83,39736515	73,63306377	51,18144188	32,74367415	18,80466248
93	92,78590273	84,39728334	74,62399241	52,02891404	33,35308577	19,17967592
94	93,78590273	85,39720932	75,61536345	52,87940646	33,96638381	19,55780648
95	94,78590273	86,39714234	76,60715534	53,73285933	34,5835296	19,93903864
96	95,78590273	87,39708173	77,59934754	54,58921402	35,20448485	20,32335691
97	96,78590273	88,39702689	78,59192053	55,44841309	35,82921166	20,71074591
98	97,78590273	89,39697727	79,58485574	56,31040019	36,4576725	21,10119032
99	98,78590273	90,39693238	80,57813551	57,17512014	37,08983021	21,4946749
100	99,78590273	91,39689175	81,57174302	58,04251881	37,72564802	21,89118449

0 100

1	99,78590273
10	91,39689175
20	81,57174302
50	58,04251881
100	37,72564802
200	21,89118449
1000	4,979154479

	h(t)	s(t)
0	0	0
1	0,048770575	1
2	0,095162582	1
3	0,139292024	1
4	0,181269247	1
5	0,221199217	1
6	0,259181779	1
7	0,29531191	1
8	0,329679954	1
9	0,362371848	1
10	0,39346934	1
11	0,42305019	1
12	0,451188364	1
13	0,477954223	1
14	0,503414696	1
15	0,527633447	1
16	0,550671036	1
17	0,572585068	1
18	0,59343034	1
19	0,613258977	1
20	0,632120559	1
21	0,650062251	1
22	0,667128916	1
23	0,683363231	1
24	0,698805788	1
25	0,713495203	1
26	0,727468207	1
27	0,740759739	1
28	0,753403036	1
29	0,765429712	1
30	0,77686984	1
31	0,787752026	1
32	0,798103482	1
33	0,807950091	1
34	0,817316476	1
35	0,826226057	1
36	0,834701112	1
37	0,842762834	1
38	0,850431381	1
39	0,857725928	1
40	0,864664717	1
41	0,871265096	1
42	0,877543572	1
43	0,883515842	1

44	0,889196842	1
45	0,894600775	1
46	0,899741156	1
47	0,904630838	1
48	0,909282047	1
49	0,913706414	1
50	0,917915001	1
51	0,921918334	1
52	0,925726422	1
53	0,929348787	1
54	0,932794487	1
55	0,936072139	1
56	0,939189937	1
57	0,942155679	1
58	0,94497678	1
59	0,947660294	1
60	0,950212932	1
61	0,952641076	1
62	0,954950798	1
63	0,957147873	1
64	0,959237796	1
65	0,961225792	1
66	0,963116833	1
67	0,964915646	1
68	0,96662673	1
69	0,968254364	1
70	0,969802617	1
71	0,97127536	1
72	0,972676278	1
73	0,974008871	1
74	0,975276474	1
75	0,976482254	1
76	0,977629228	1
77	0,978720264	1
78	0,979758089	1
79	0,980745298	1
80	0,981684361	1
81	0,982577625	1
82	0,983427325	1
83	0,984235584	1
84	0,985004423	1
85	0,985735766	1
86	0,986431441	1
87	0,987093187	1
88	0,98772266	1
89	0,988321433	1
90	0,988891003	1
91	0,989432796	1
92	0,989948164	1
93	0,990438398	1
94	0,990904723	1
95	0,991348305	1
96	0,991770253	1

97	0,992171622	1
98	0,992553417	1
99	0,992916591	1
100	0,993262053	1

T=1000

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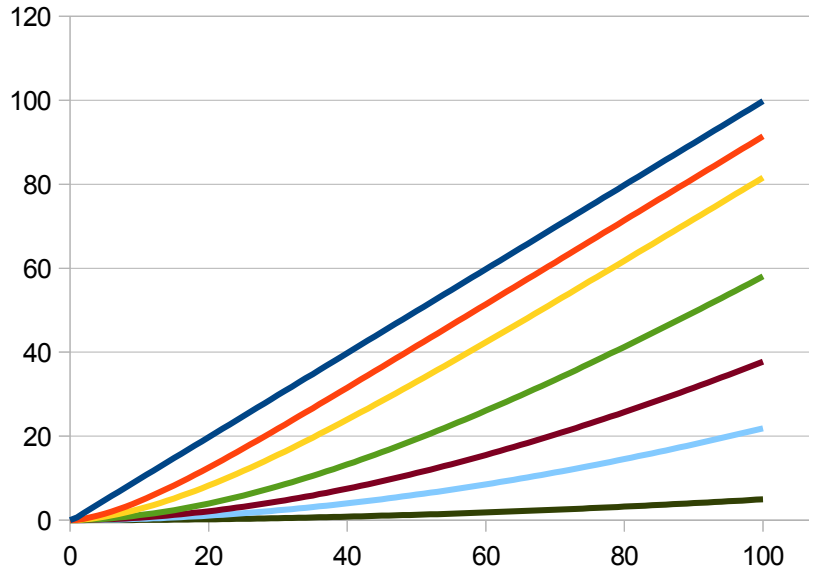

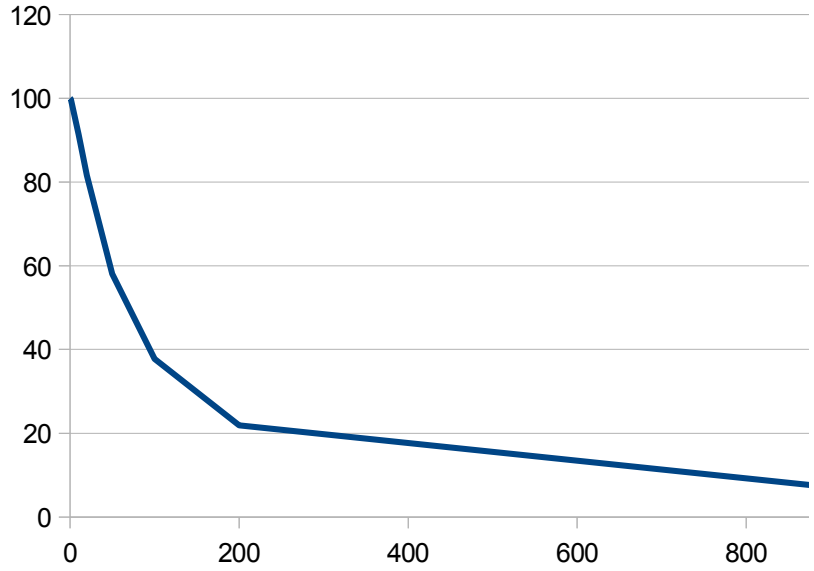

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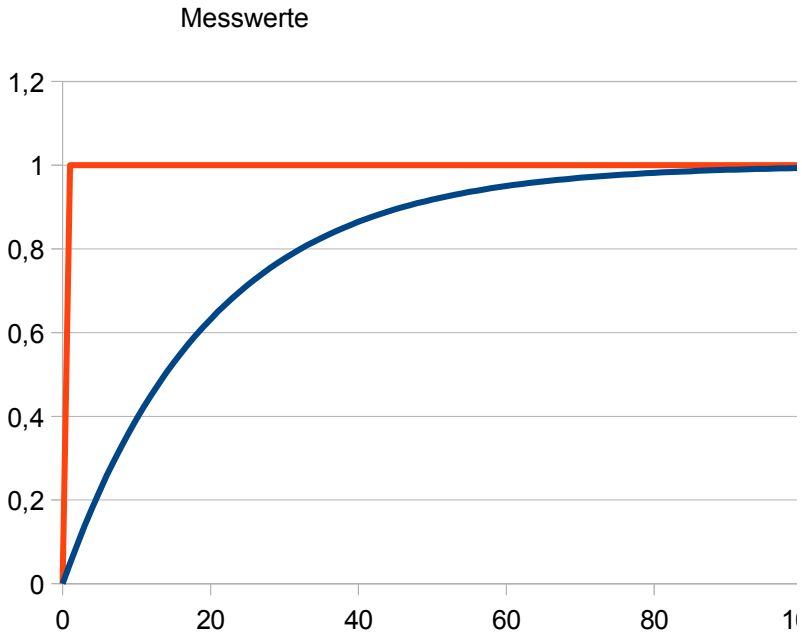
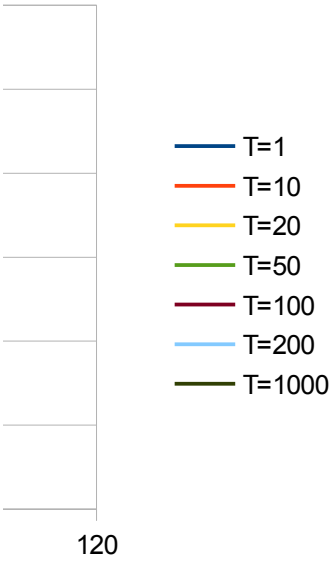
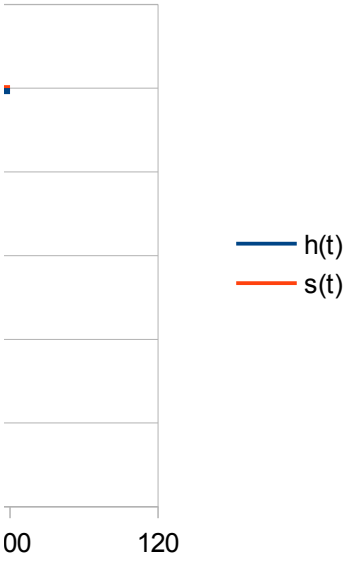


Messwerte


T=1
T=10
T=20
T=50
T=100
T=200
T=1000
120


1000
1200

Messwerte



Messwerte