

Simulation 4.2

Part2

Author Name

The aim of the report

Feedbacks

Department Name

University Name

Country

Date

Chapter 1

Summary

1.1 MSE for $n = 512$

$k_{N_z}^\sigma$	m							
	80	90	100	110	120	130	140	150
$1000_{15}^{0.002}$	1.0560E-04	1.1209E-04	1.0229E-04	9.8239E-05	9.3934E-05	7.6877E-05	8.5988E-05	8.6879E-05
$2500_{15}^{0.002}$	6.3381E-03	1.9443E-05	1.6833E-05	1.8925E-05	1.8544E-05	1.4123E-05	1.4605E-05	1.3805E-05
$5000_{15}^{0.002}$	7.9868E-06	3.7710E-05	6.0672E-06	4.6313E-06	5.8835E-06	4.4053E-06	4.3967E-06	5.2360E-06
$1000_{15}^{0.020}$	1.5943E-03	7.1687E-04	2.3504E-04	2.5102E-04	1.9138E-04	1.6162E-04	1.9532E-04	1.3470E-04
$2500_{15}^{0.020}$	5.1712E-03	8.5080E-05	1.3296E-04	1.3145E-04	2.2780E-04	6.6987E-05	1.0550E-04	1.8101E-04
$5000_{15}^{0.020}$	1.6580E-02	1.6106E-04	2.6179E-04	8.8339E-05	2.7186E-04	1.5328E-04	1.4970E-04	1.0286E-04
$1000_{25}^{0.002}$	3.7924E-02	3.2953E-02	2.2311E-02	2.1806E-02	5.8534E-04	2.5598E-03	6.2884E-05	5.3741E-05
$2500_{25}^{0.002}$	3.9403E-02	3.5893E-02	1.7250E-02	3.5109E-04	7.2696E-03	1.2143E-05	9.2004E-05	2.2523E-05
$5000_{25}^{0.002}$	4.1010E-02	5.9391E-03	3.0753E-02	2.8401E-02	2.7536E-05	7.7386E-03	2.9185E-04	4.1558E-06
$1000_{25}^{0.020}$	3.2724E-02	9.3374E-03	2.6011E-02	1.6733E-03	9.6481E-03	8.1350E-04	3.3771E-04	1.9166E-04
$2500_{25}^{0.020}$	3.9395E-02	3.2592E-02	3.2556E-02	5.5361E-03	8.7281E-04	2.2547E-04	4.1474E-04	2.4462E-04
$5000_{25}^{0.020}$	3.5932E-02	3.0071E-02	1.8789E-02	1.4839E-03	5.5903E-03	3.2871E-03	1.7926E-04	2.7108E-04

Table 1.1: MSE for $n = 512$

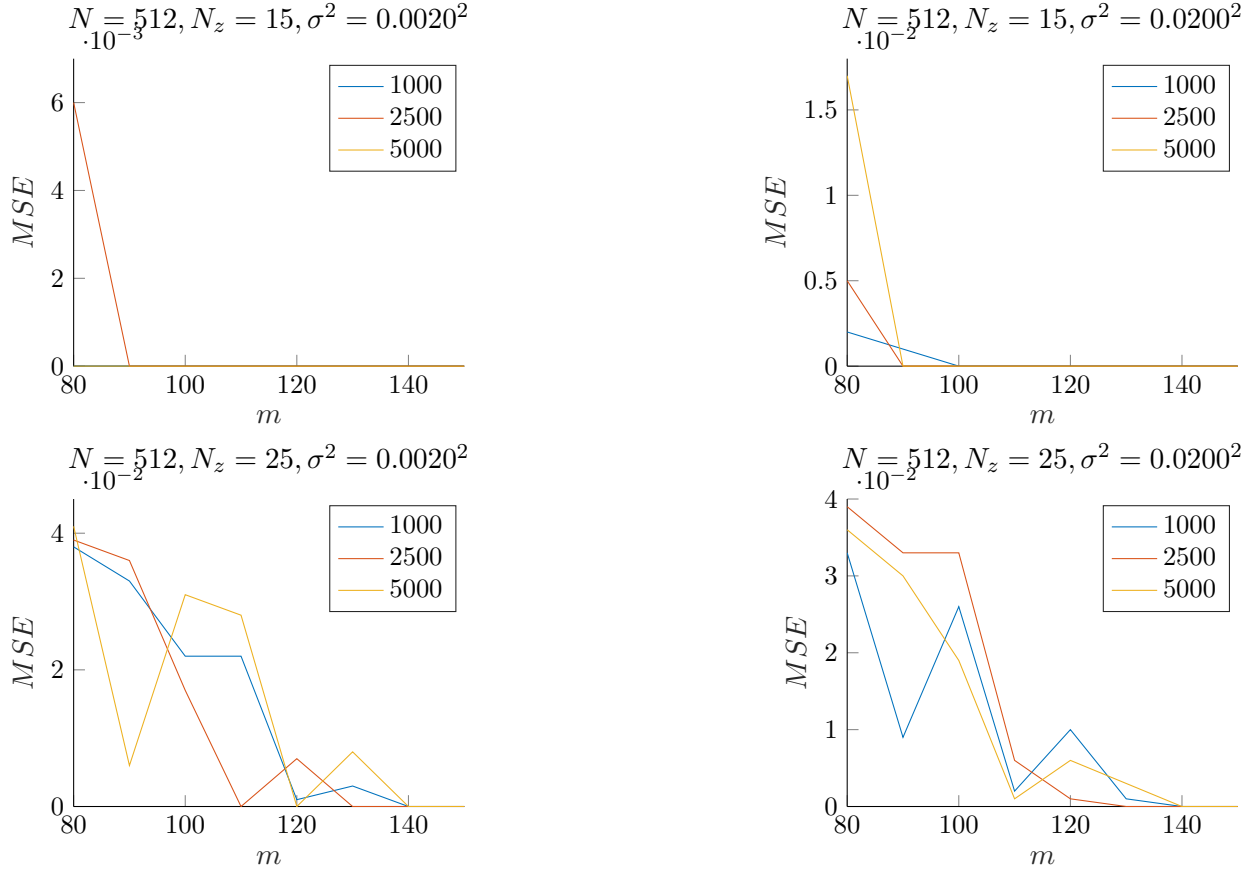


Figure 1.1: MSE performances for $N = 512$

1.2 Execution time for $n = 512$

$k_{N_z}^\sigma$	m								Total
	80	90	100	110	120	130	140	150	
$1000_{15}^{0.002}$	00:18:12	00:18:01	00:16:09	00:15:36	00:15:03	00:18:01	00:15:18	00:13:45	02:10:05
$2500_{15}^{0.002}$	00:23:31	00:21:23	00:21:48	00:20:35	00:18:33	00:16:55	00:18:08	00:16:58	02:37:51
$5000_{15}^{0.002}$	00:41:43	00:44:26	00:35:30	00:29:34	00:26:46	00:27:41	00:26:45	00:26:16	04:18:41
$1000_{15}^{0.020}$	00:16:57	00:15:14	00:17:40	00:17:13	00:14:37	00:15:27	00:17:08	00:17:44	02:12:00
$2500_{15}^{0.020}$	00:24:47	00:29:18	00:26:33	00:29:33	00:23:50	00:27:42	00:31:51	00:21:57	03:35:31
$5000_{15}^{0.020}$	00:30:26	01:06:21	00:54:52	01:03:23	00:49:13	00:52:20	00:49:27	01:07:39	07:13:41
$1000_{25}^{0.002}$	00:11:52	00:11:53	00:11:14	00:11:10	00:12:10	00:12:12	00:12:27	00:12:53	01:35:51
$2500_{25}^{0.002}$	00:12:47	00:13:12	00:18:37	00:22:59	00:22:49	00:18:17	00:18:56	00:17:26	02:25:03
$5000_{25}^{0.002}$	00:13:51	00:44:35	00:15:15	00:16:21	00:37:23	00:37:32	00:34:28	00:24:07	03:43:32
$1000_{25}^{0.020}$	00:11:35	00:14:17	00:11:05	00:12:31	00:11:26	00:11:31	00:12:36	00:14:12	01:39:13
$2500_{25}^{0.020}$	00:13:19	00:12:37	00:13:26	00:23:29	00:24:51	00:25:26	00:21:39	00:24:35	02:39:22
$5000_{25}^{0.020}$	00:14:32	00:15:49	00:30:54	00:43:38	00:35:23	00:35:08	00:38:38	00:36:14	04:10:16
									01:14:21:06

Table 1.2: Execution time for $n = 512$

1.3 Settle down time for $n = 512$

$k_{N_z}^\sigma$	m							
	80	90	100	110	120	130	140	150
$1000_{15}^{0.002}$	56.50	50.68	91.02	41.58	35.78	29.87	24.60	27.55
$2500_{15}^{0.002}$	150.00	82.30	59.72	149.70	58.58	27.25	28.96	34.41
$5000_{15}^{0.002}$	109.32	132.82	92.47	51.93	54.17	48.74	114.93	60.99
$1000_{15}^{0.020}$	150.00	150.00	48.69	122.58	51.16	33.51	30.31	19.03
$2500_{15}^{0.020}$	150.00	46.42	46.20	49.61	55.44	30.89	29.20	38.34
$5000_{15}^{0.020}$	150.00	142.36	94.83	41.17	92.84	53.04	56.66	143.63
$1000_{25}^{0.002}$	139.63	149.86	150.00	150.00	150.00	150.00	49.59	104.72
$2500_{25}^{0.002}$	148.26	140.29	150.00	150.00	150.00	58.60	145.90	123.29
$5000_{25}^{0.002}$	129.53	150.00	119.30	149.51	127.16	150.00	150.00	58.87
$1000_{25}^{0.020}$	149.01	150.00	150.00	150.00	150.00	150.00	89.32	49.09
$2500_{25}^{0.020}$	148.83	115.42	149.29	150.00	150.00	80.36	141.91	74.37
$5000_{25}^{0.020}$	149.75	132.60	150.00	150.00	150.00	150.00	91.21	111.40

Table 1.3: Settle down time for $n = 512$

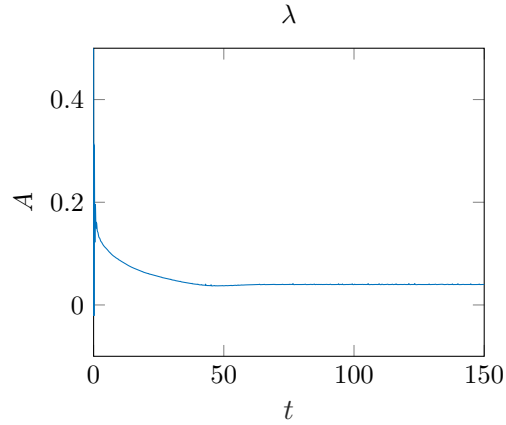
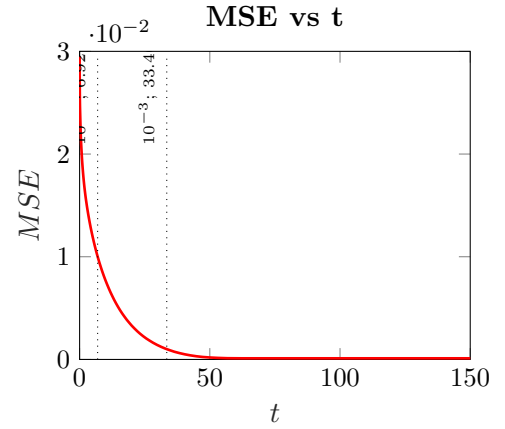
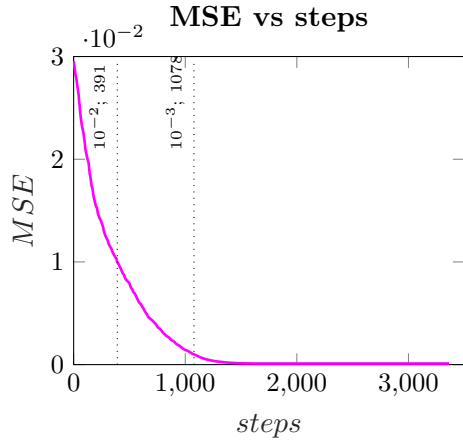
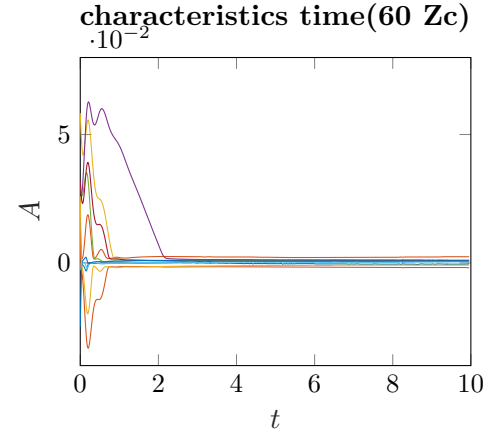
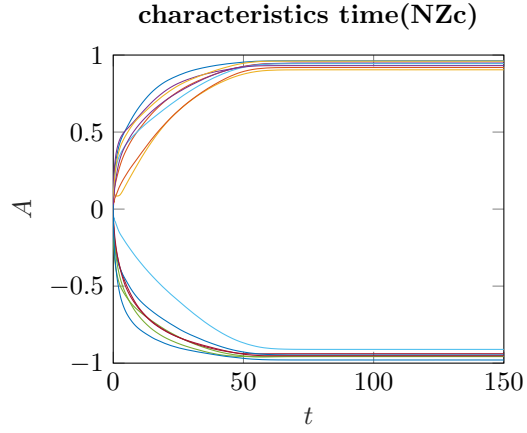
Chapter 2

Details

2.1 sim 4.111

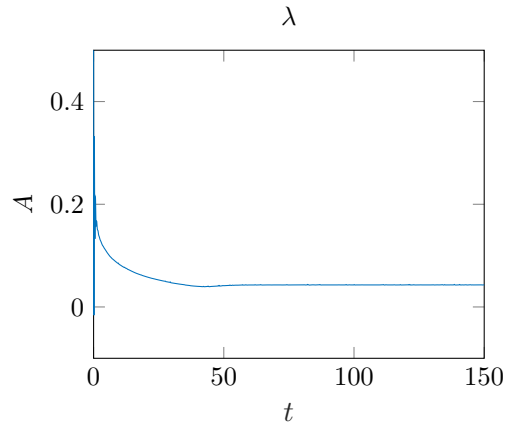
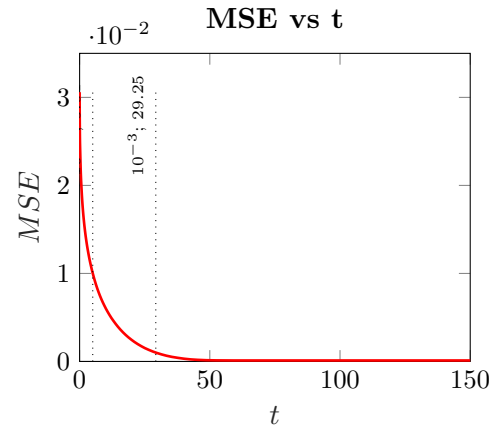
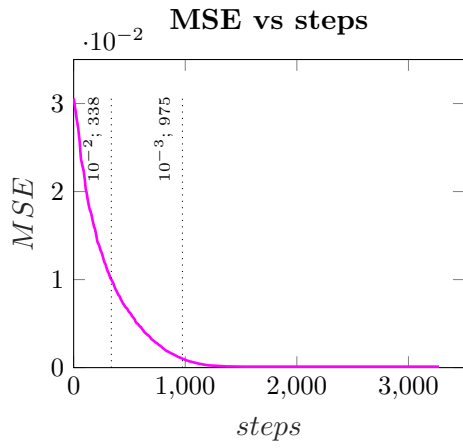
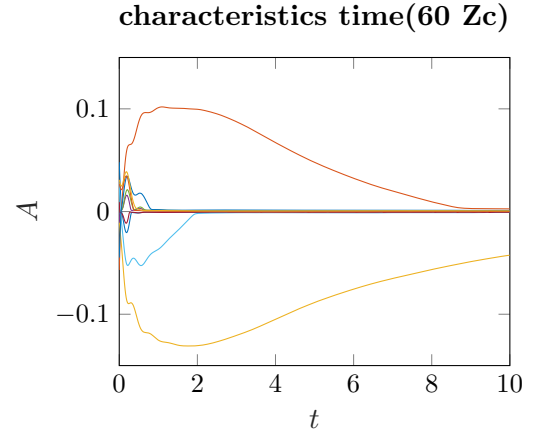
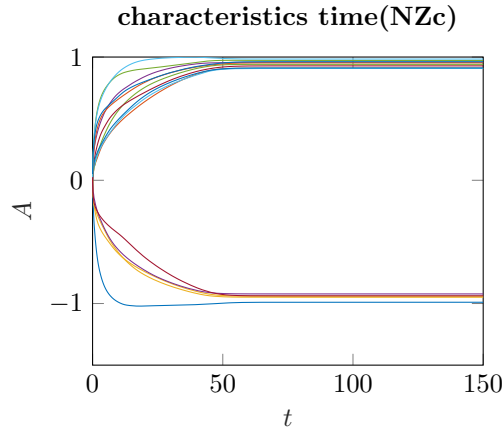
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$1.0560E-04$	00 : 18 : 12	150.00	3363	4.111

A	Nz	η	m	n	σ
1	15	15	80	512	0.0020



2.2 sim 4.112

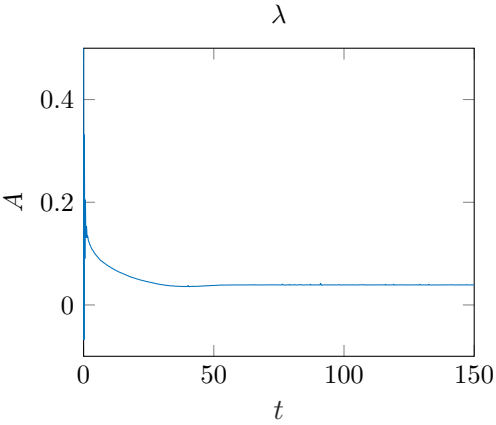
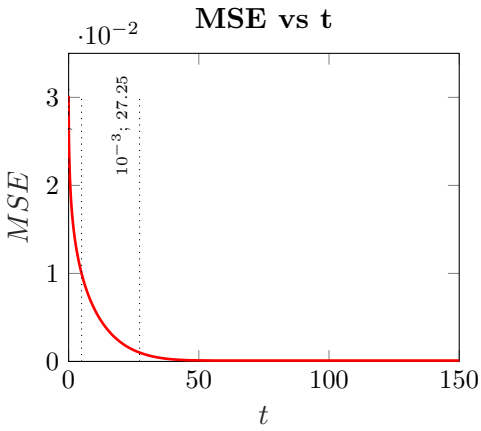
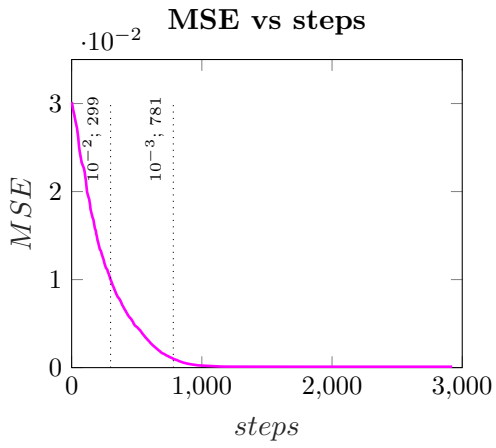
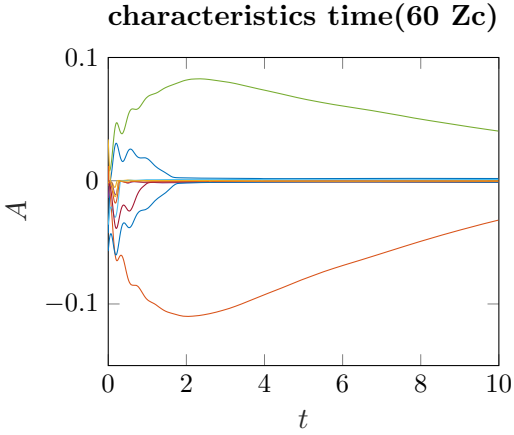
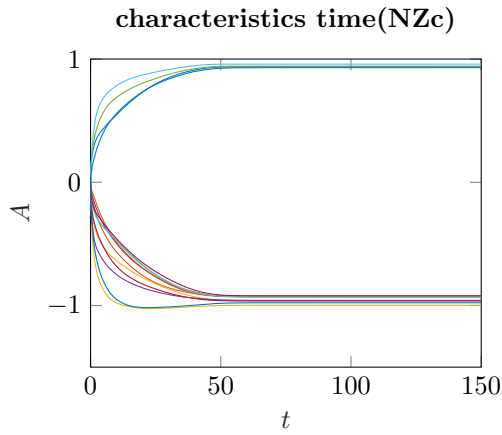
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$1.1209E-04$	00 : 18 : 01	150.00	3273	4.112
		A	Nz	η	m	n
		1	15	15	90	512
						σ
						0.0020



2.3 sim 4.105

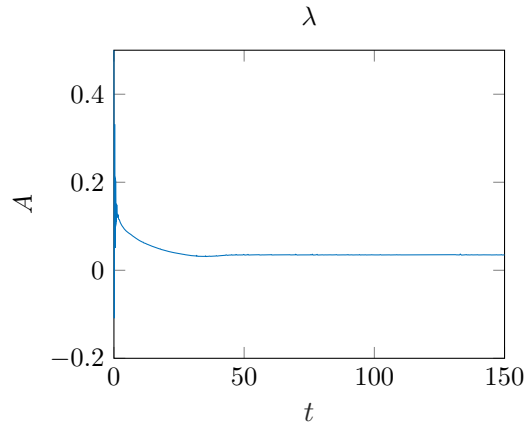
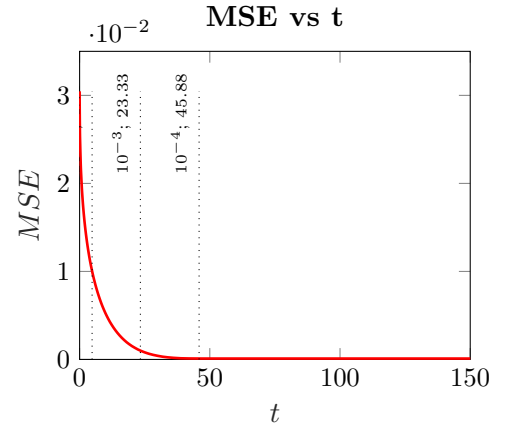
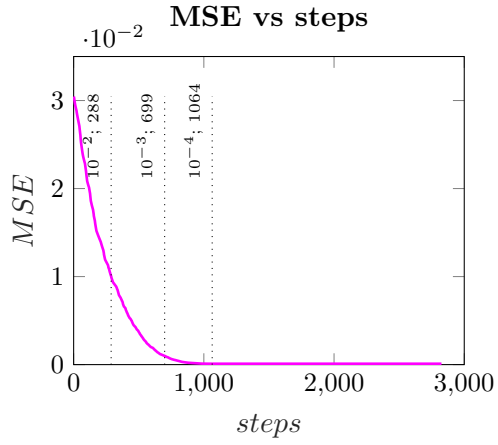
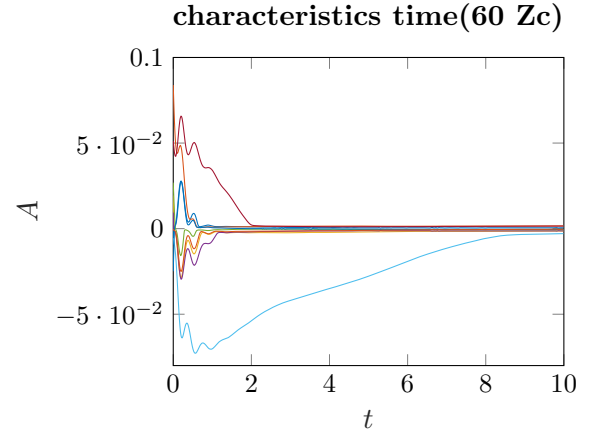
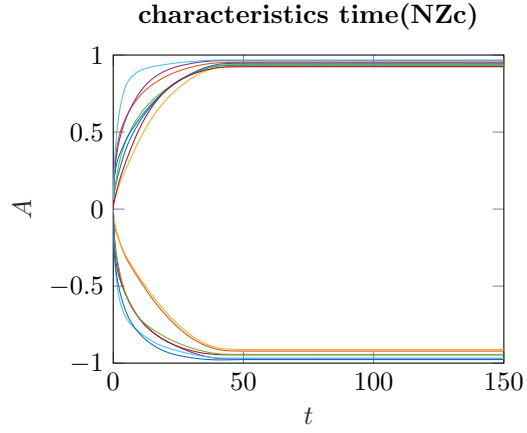
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$1.0229E-04$	00 : 16 : 09	150.00	2923	4.105

A	Nz	η	m	n	σ
1	15	15	100	512	0.0020



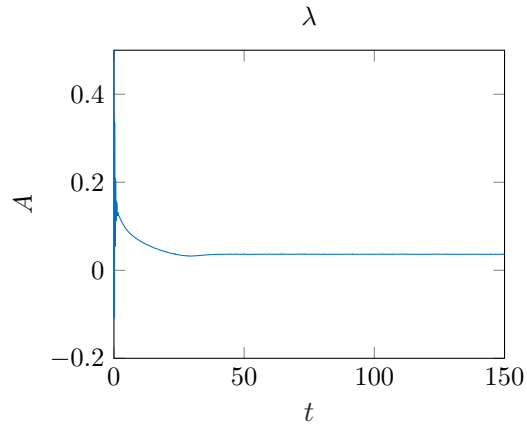
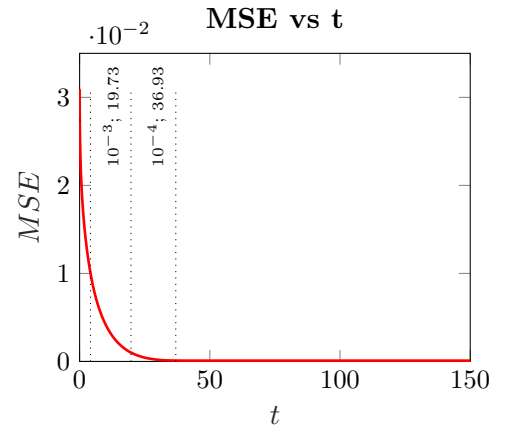
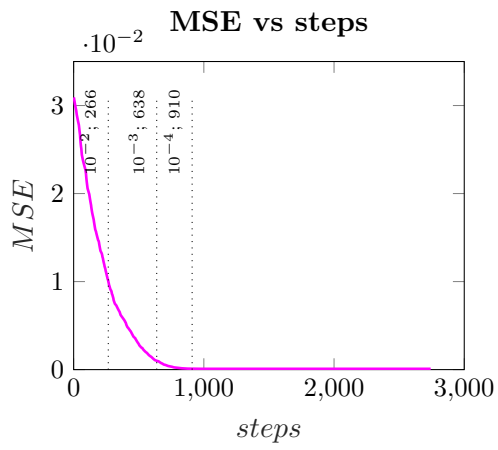
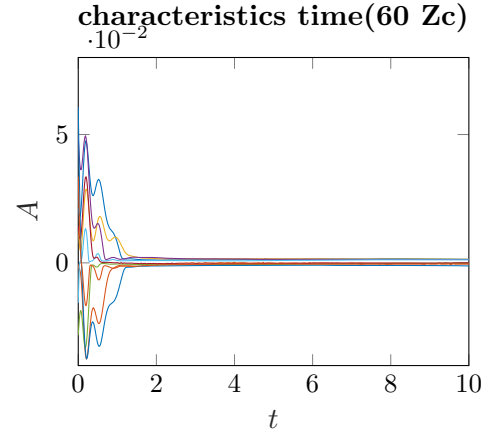
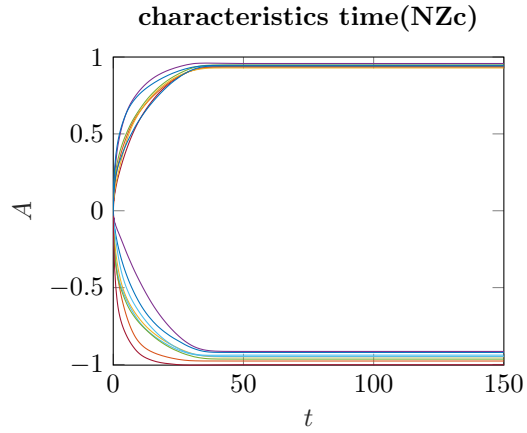
2.4 sim 4.106

k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$9.8239E-05$	00 : 15 : 36	150.00	2825	4.106
A	Nz	η	m	n	σ	
1	15	15	110	512	0.0020	



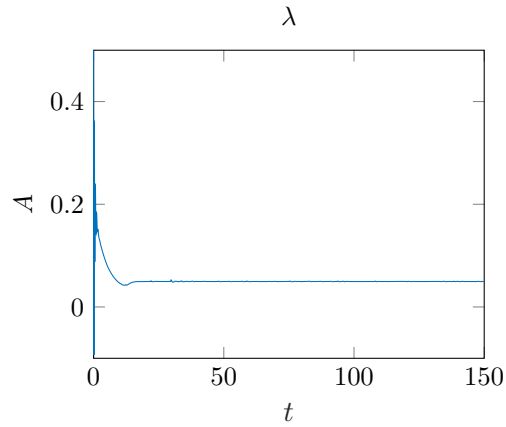
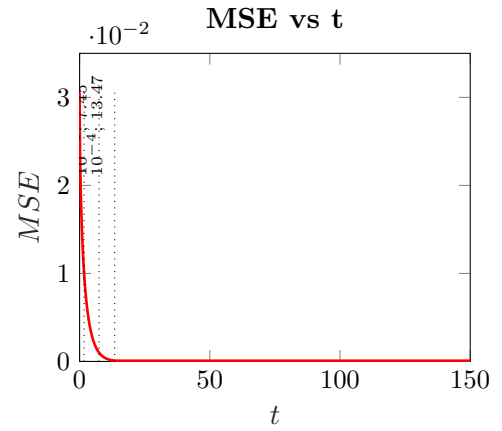
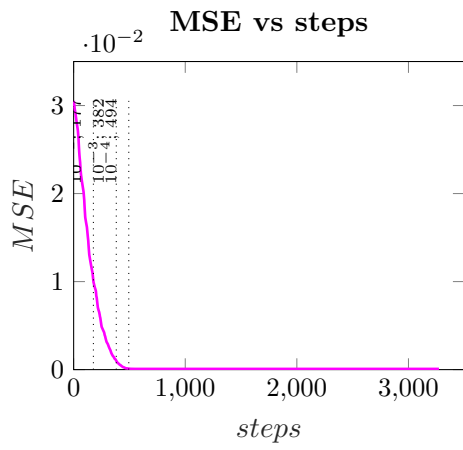
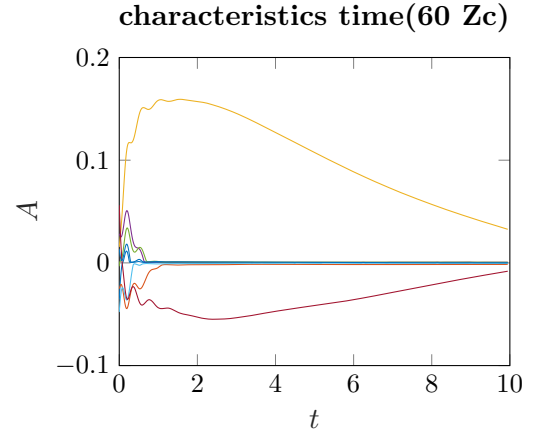
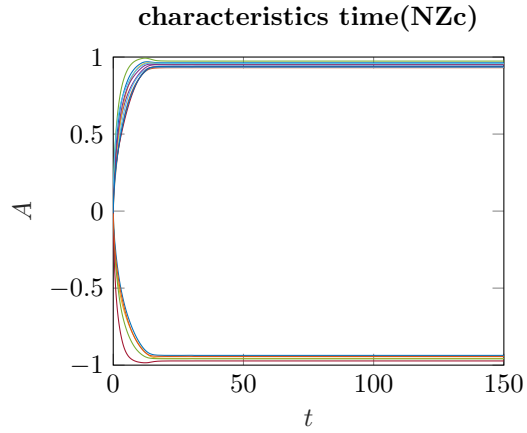
2.5 sim 4.107

k	ϕ	MSE	ExTime	t_{max}	steps	id	
1000	U	9.3934E-05	00 : 15 : 03	150.00	2742	4.107	
		A	Nz	η	m	n	σ
		1	15	15	120	512	0.0020



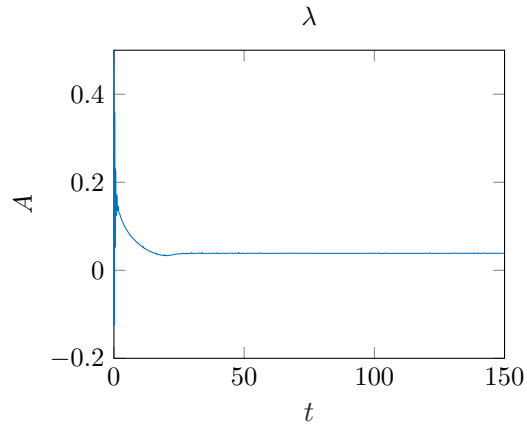
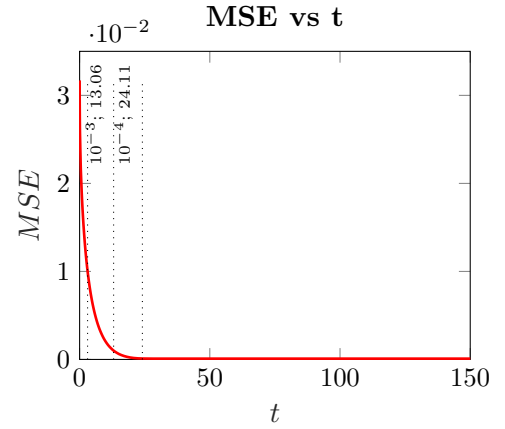
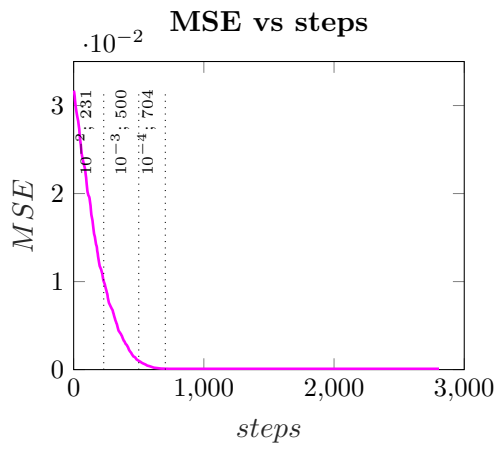
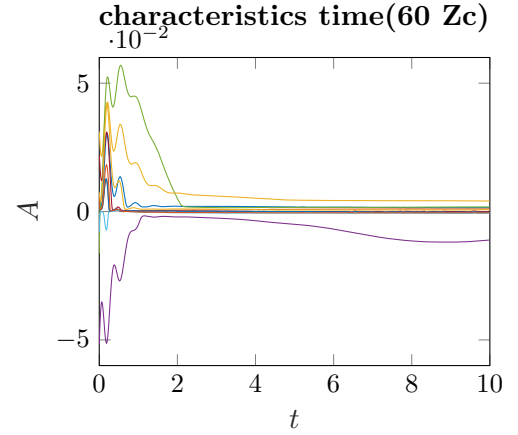
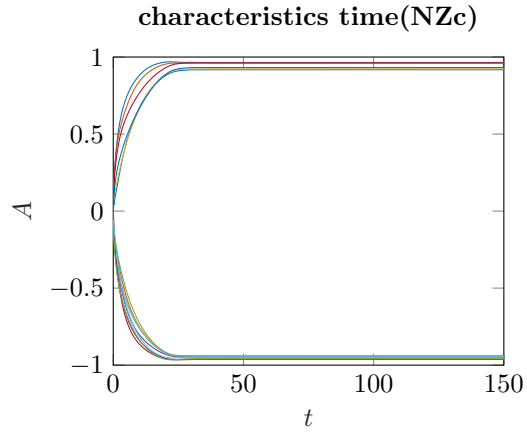
2.6 sim 4.108

k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$7.6877E-05$	00 : 18 : 01	150.00	3273	4.108
A	Nz	η	m	n	σ	
1	15	15	130	512	0.0020	



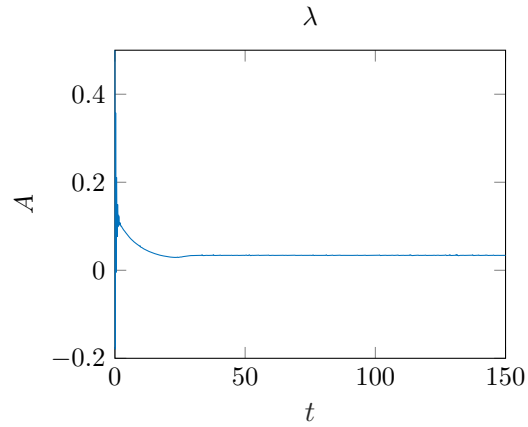
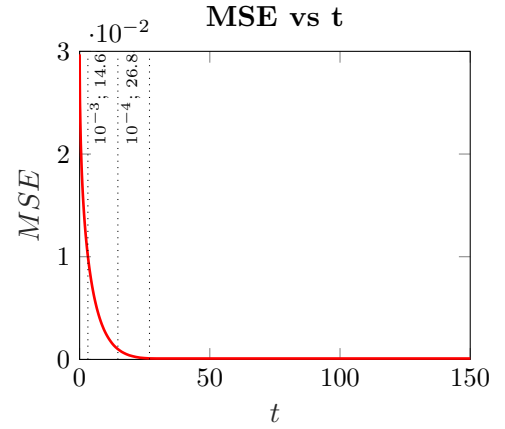
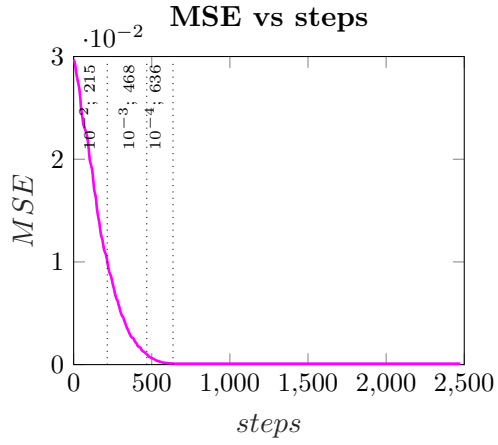
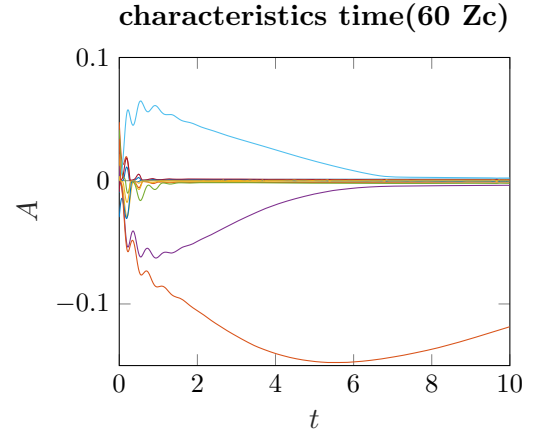
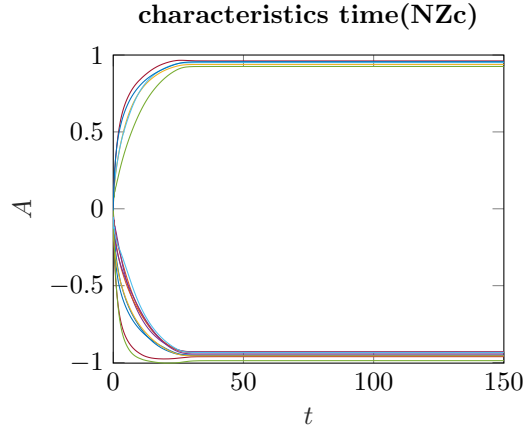
2.7 sim 4.109

k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$8.5988E-05$	00 : 15 : 18	150.00	2806	4.109
		A	Nz	η	m	n
		1	15	15	140	512
		σ				
		0.0020				



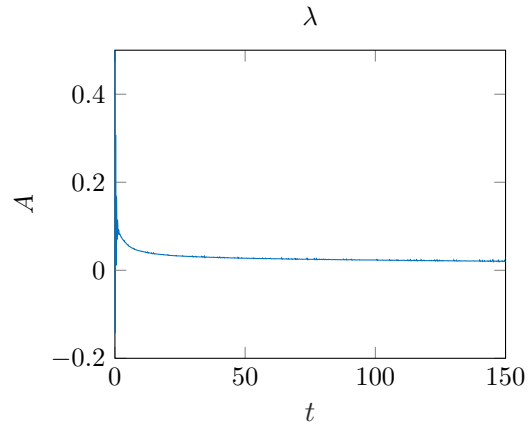
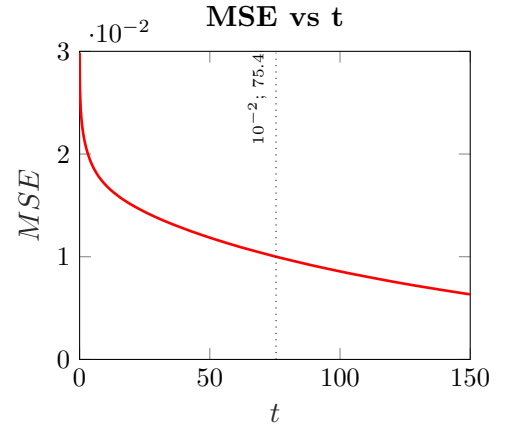
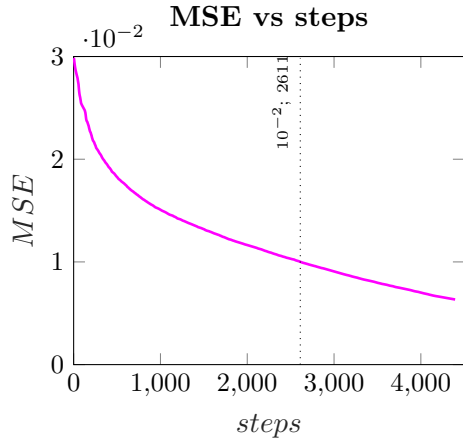
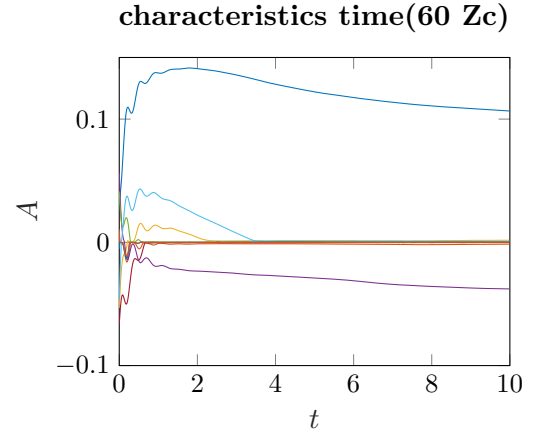
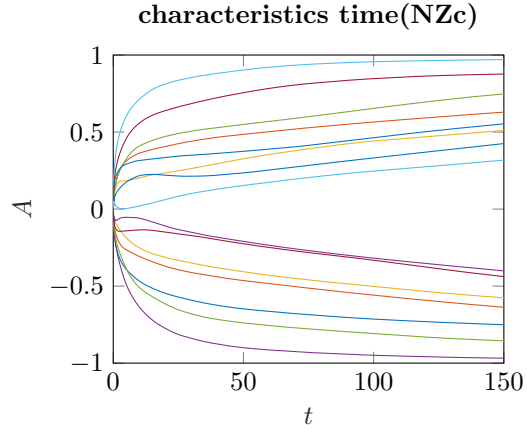
2.8 sim 4.110

k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$8.6879E-05$	00 : 13 : 45	150.00	2475	4.110
		A	Nz	η	m	n
		1	15	15	150	512
						σ
						0.0020



2.9 sim 4.99

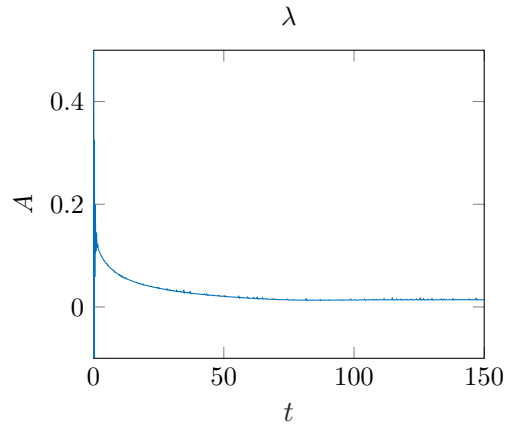
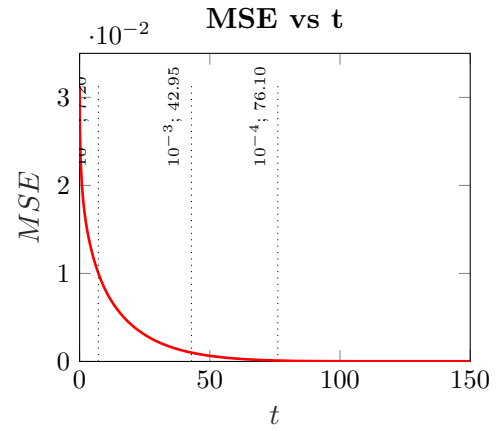
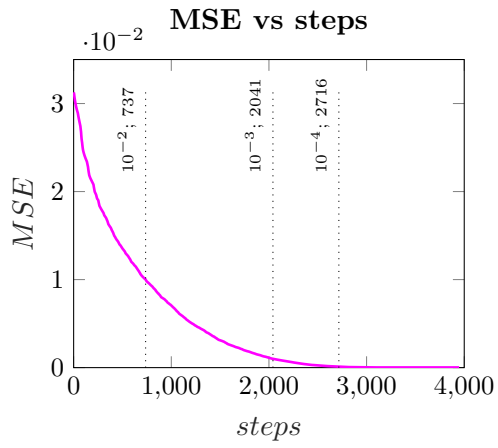
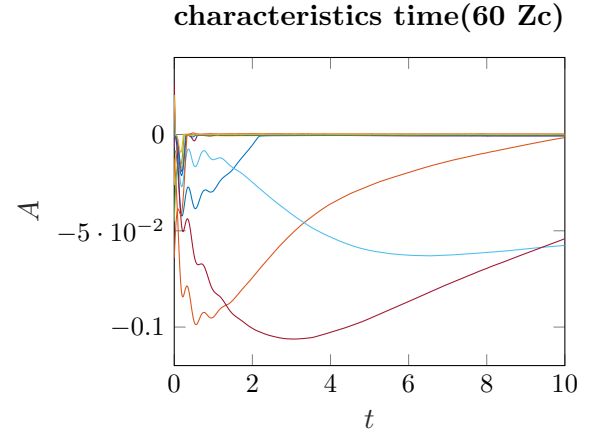
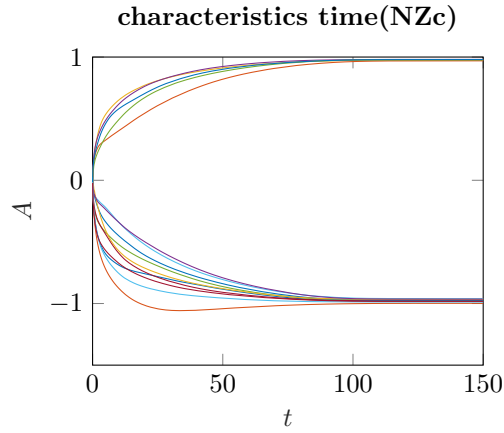
k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$6.3381E-03$	00 : 23 : 31	150.00	4395	4.99
A	Nz	η	m	n	σ	
1	15	15	80	512	0.0020	



2.10 sim 4.100

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$1.9443E-05$	00 : 21 : 23	150.00	3948	4.100

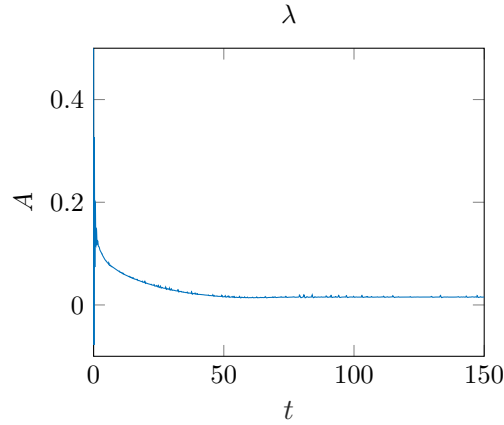
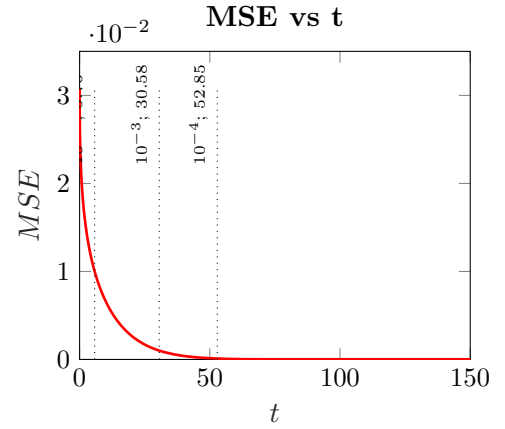
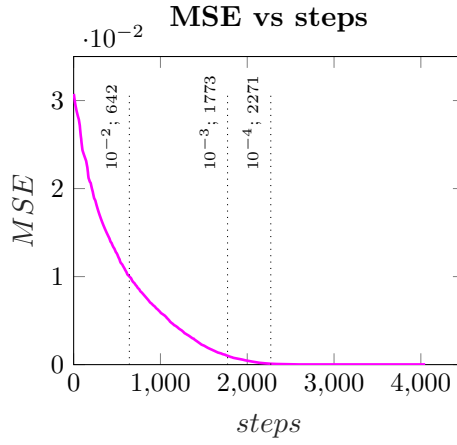
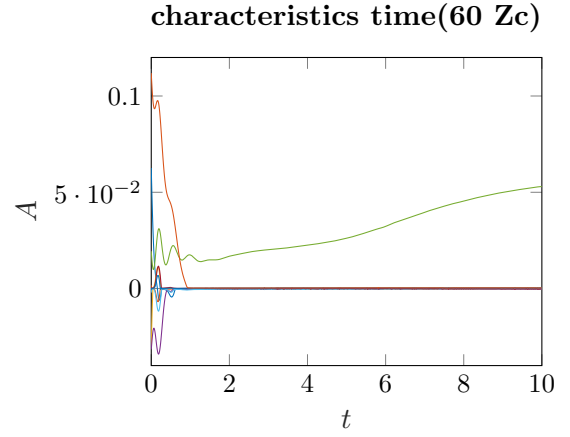
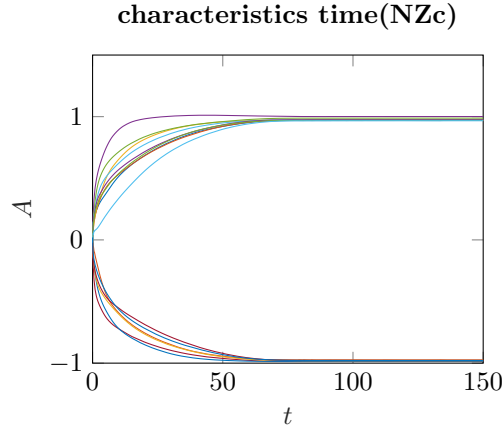
A	Nz	η	m	n	σ
1	15	15	90	512	0.0020



2.11 sim 4.93

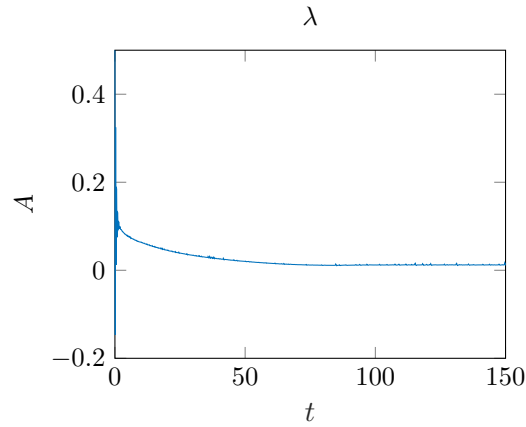
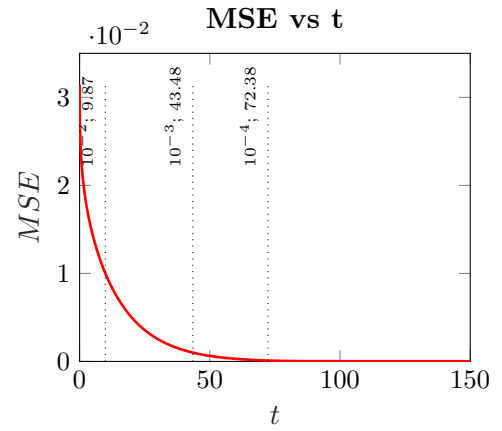
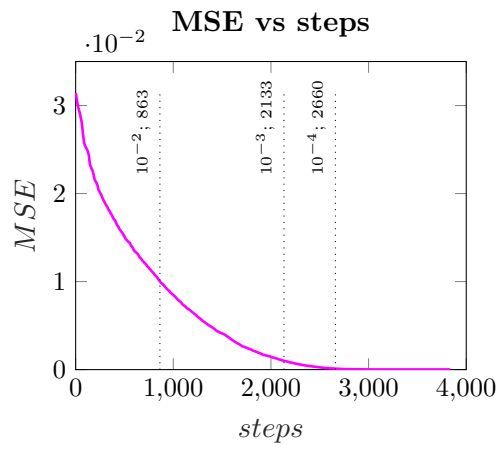
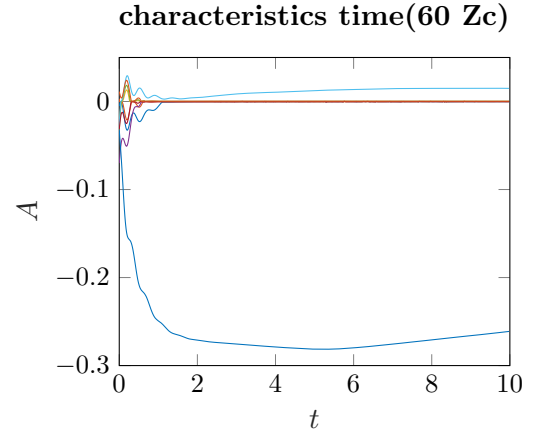
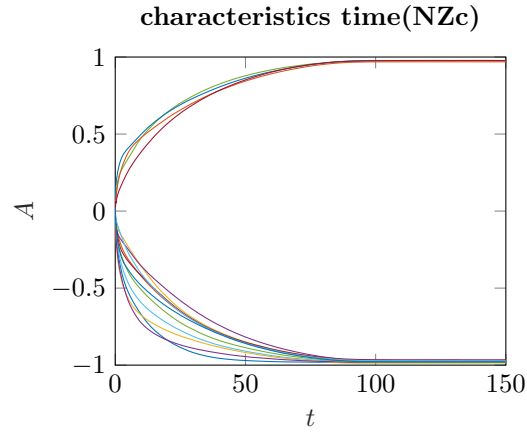
k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$1.6833E-05$	00 : 21 : 48	150.00	4050	4.93

A	Nz	η	m	n	σ
1	15	15	100	512	0.0020



2.12 sim 4.94

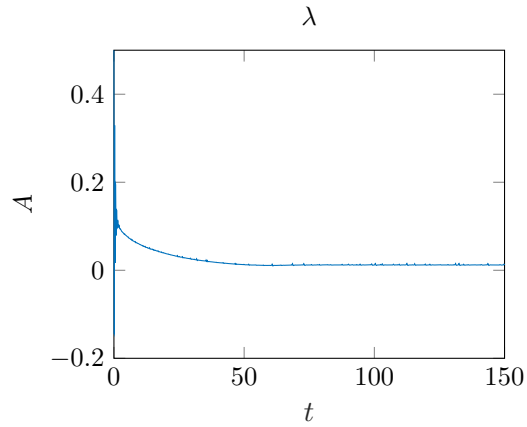
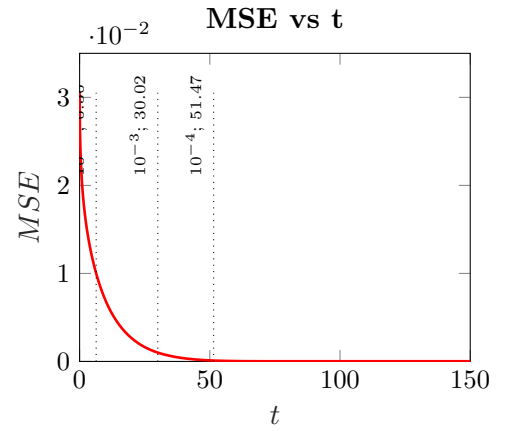
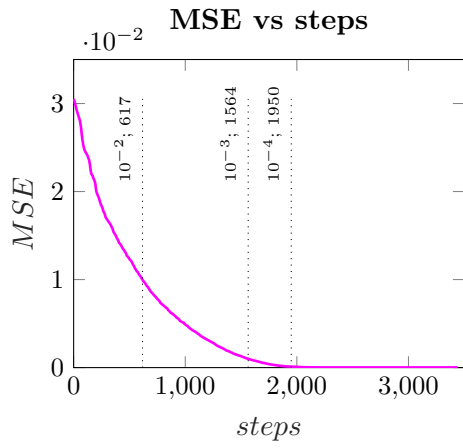
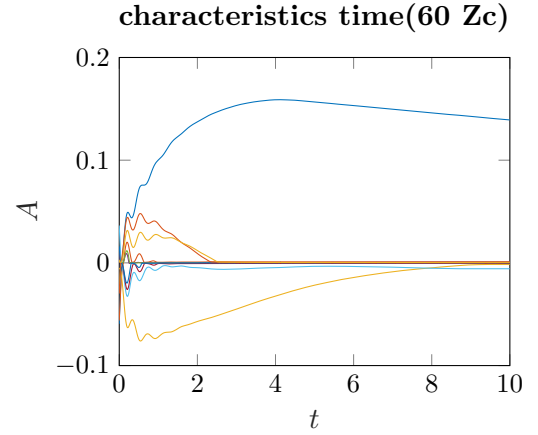
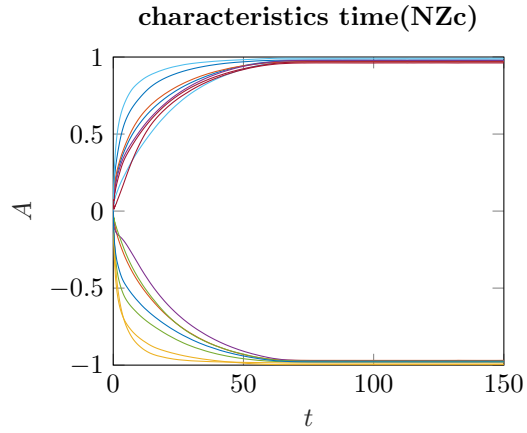
k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$1.8925E-05$	00 : 20 : 35	150.00	3837	4.94
A	Nz	η	m	n	σ	
1	15	15	110	512	0.0020	



2.13 sim 4.95

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	1.8544E-05	00 : 18 : 33	150.00	3441	4.95

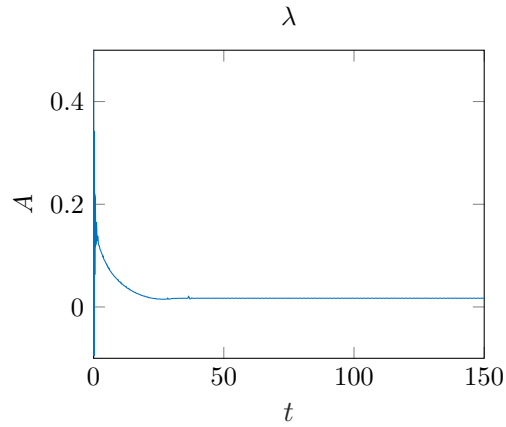
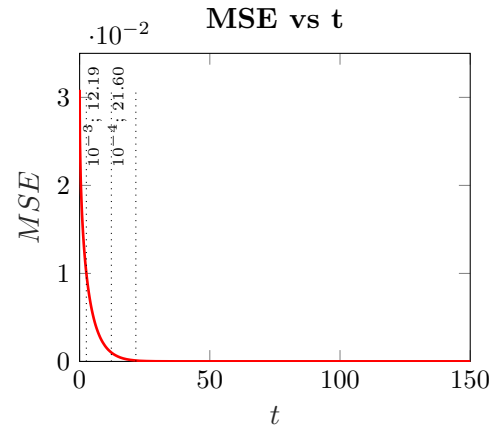
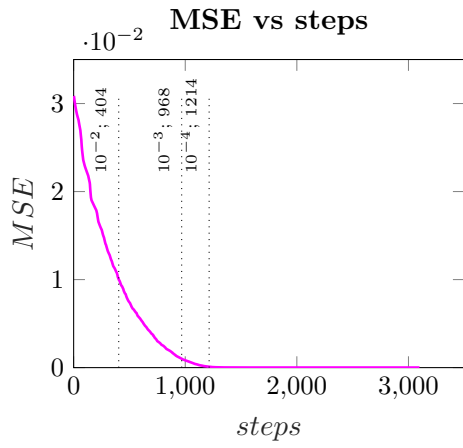
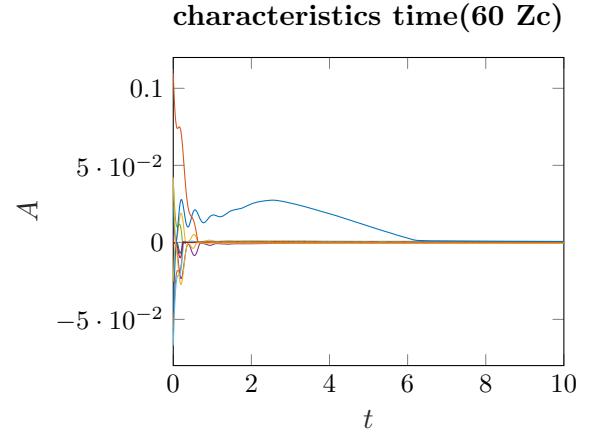
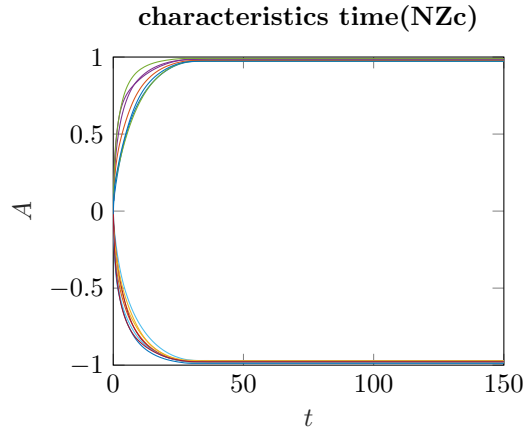
A	Nz	η	m	n	σ
1	15	15	120	512	0.0020



2.14 sim 4.96

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	1.4123E-05	00 : 16 : 55	150.00	3099	4.96

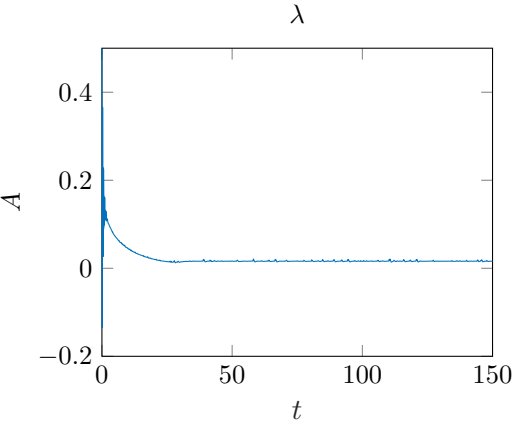
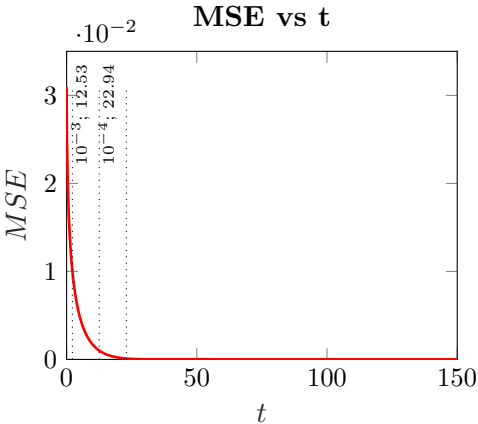
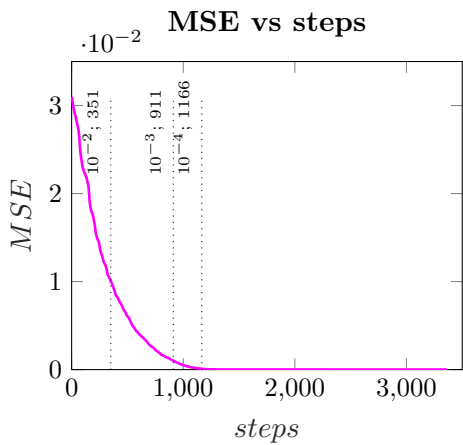
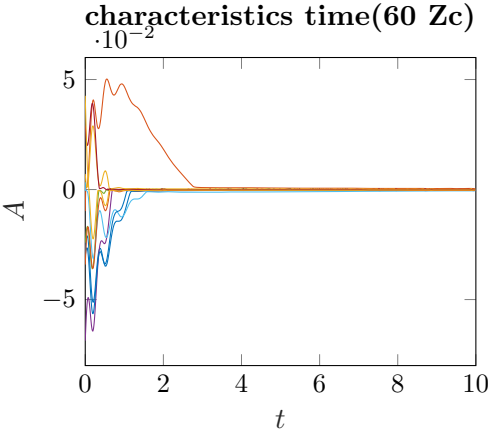
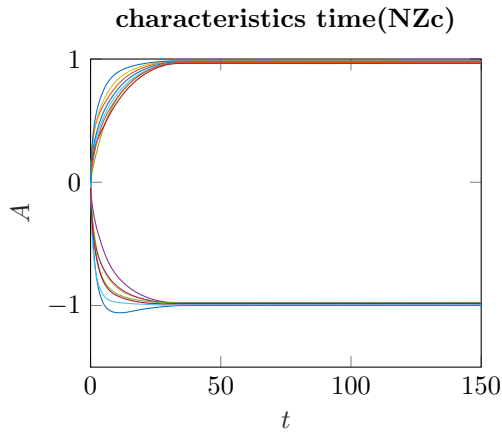
A	Nz	η	m	n	σ
1	15	15	130	512	0.0020



2.15 sim 4.97

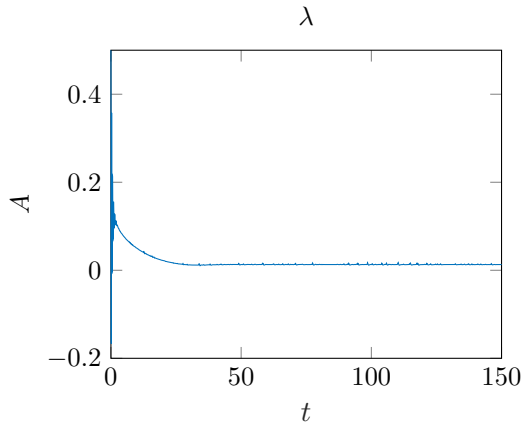
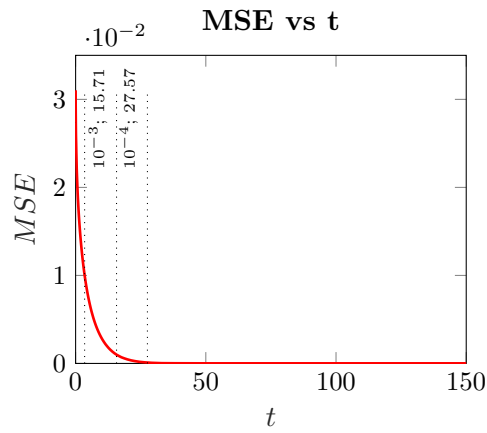
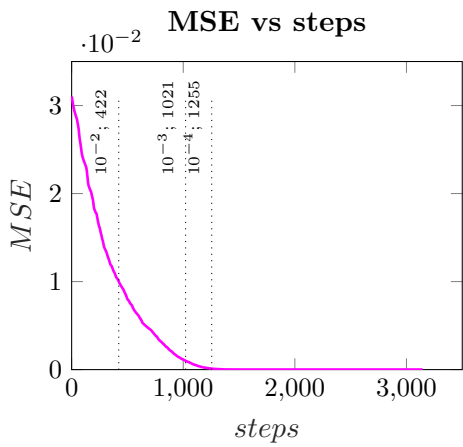
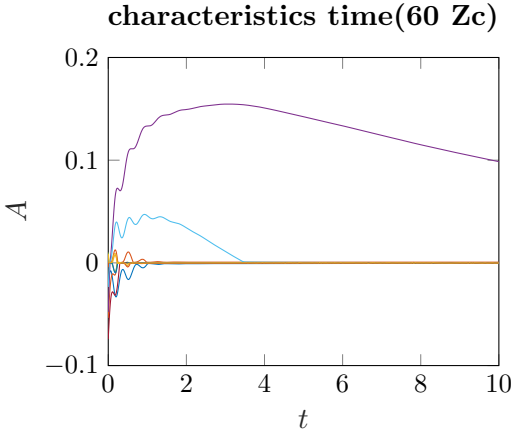
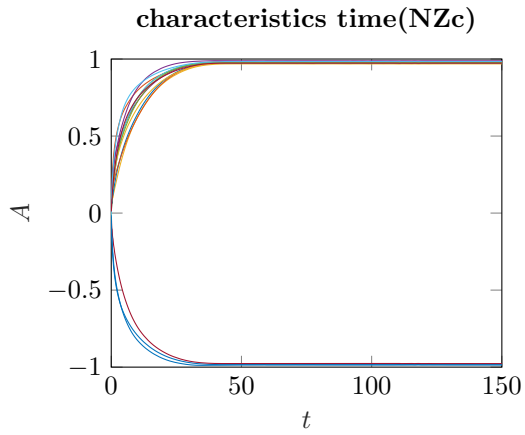
k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	1.4605E-05	00 : 18 : 08	150.00	3362	4.97

A	Nz	η	m	n	σ
1	15	15	140	512	0.0020



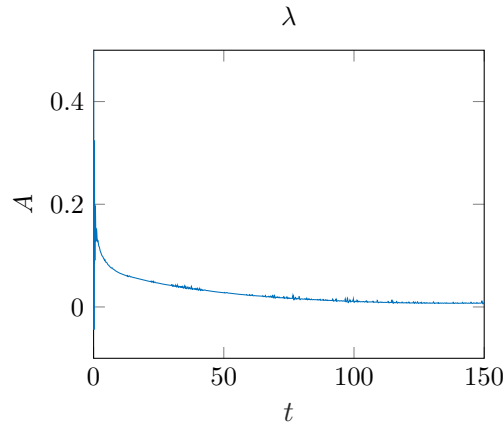
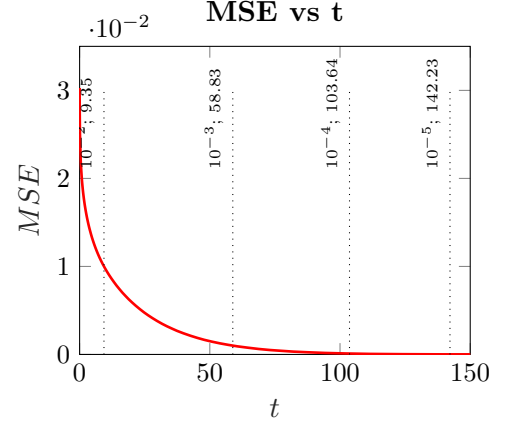
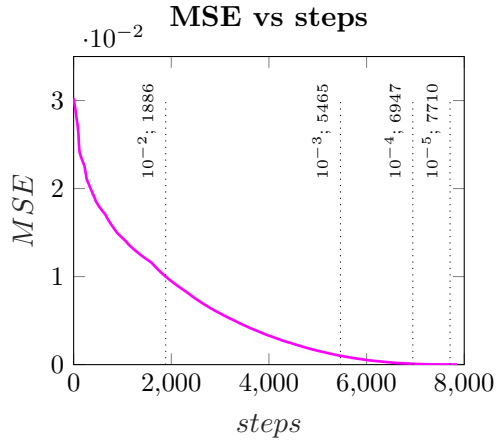
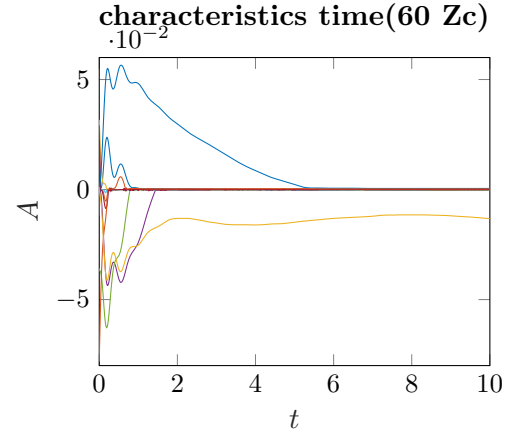
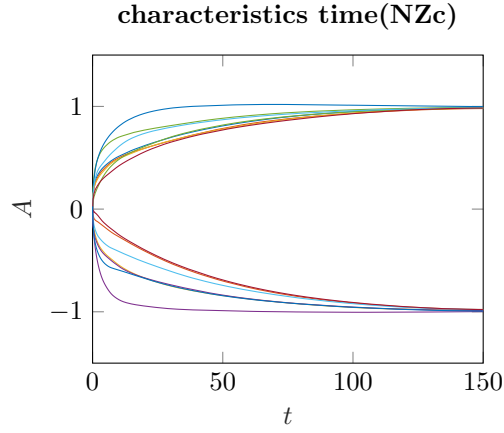
2.16 sim 4.98

k	ϕ	MSE			ExTime	t_{max}	steps	id
2500	U	1.3805E-05			00 : 16 : 58	150.00	3145	4.98
<hr/>								
		A	Nz	η	m	n	σ	
		1	15	15	150	512	0.0020	



2.17 sim 4.86

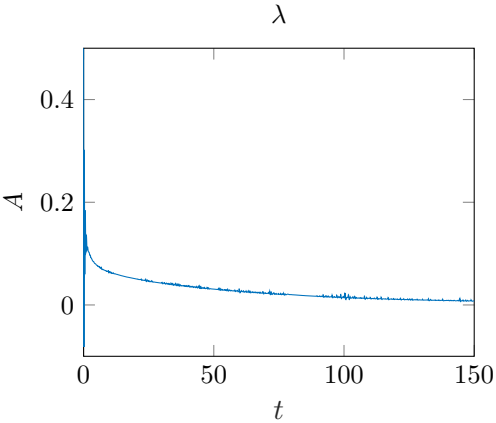
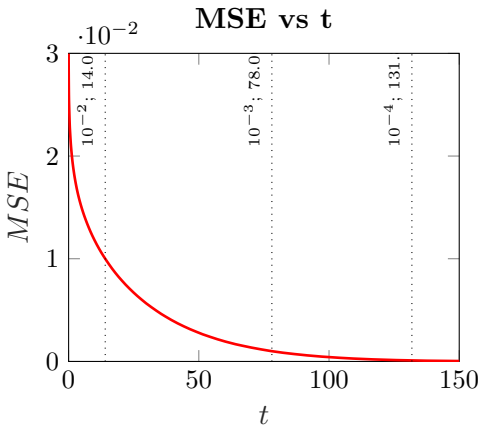
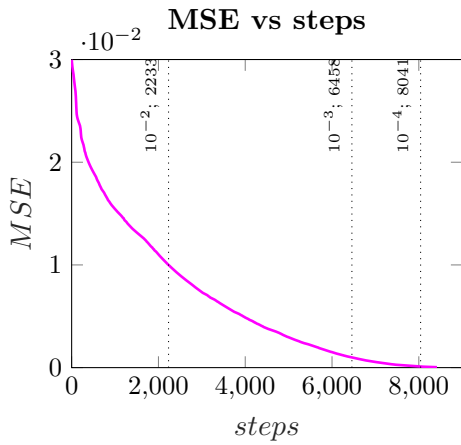
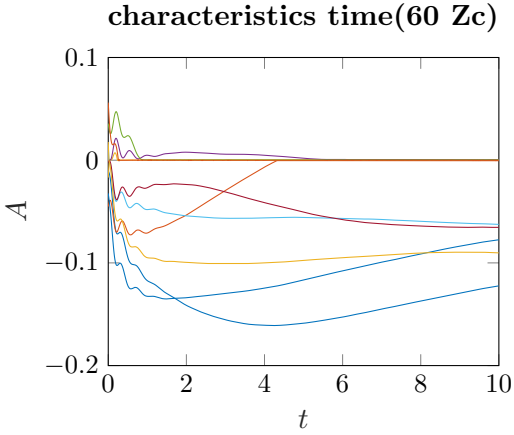
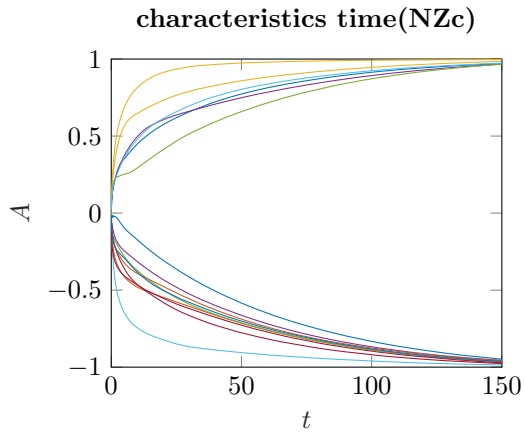
k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$7.9868E-06$	00 : 41 : 43	150.00	7853	4.86
A	Nz	η	m	n	σ	
1	15	15	80	512	0.0020	



2.18 sim 4.87

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	3.7710E-05	00 : 44 : 26	150.00	8418	4.87

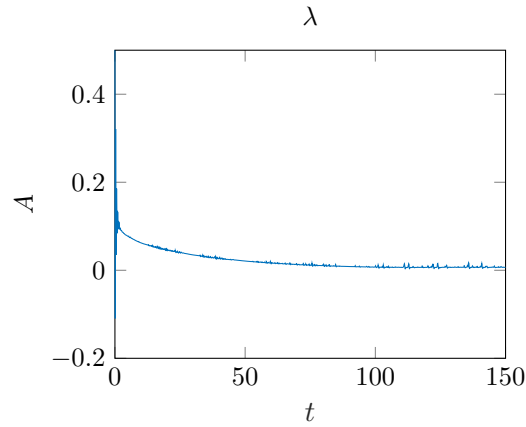
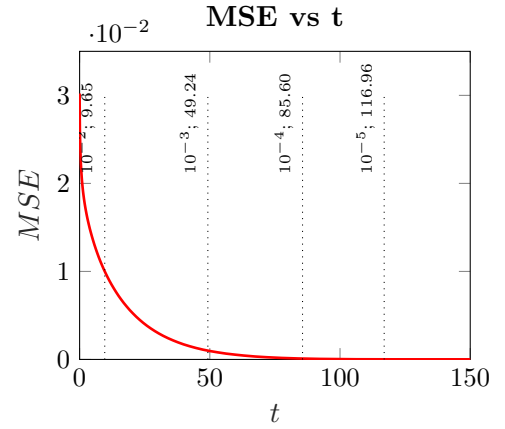
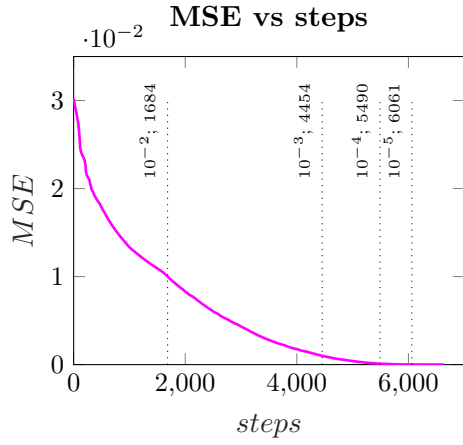
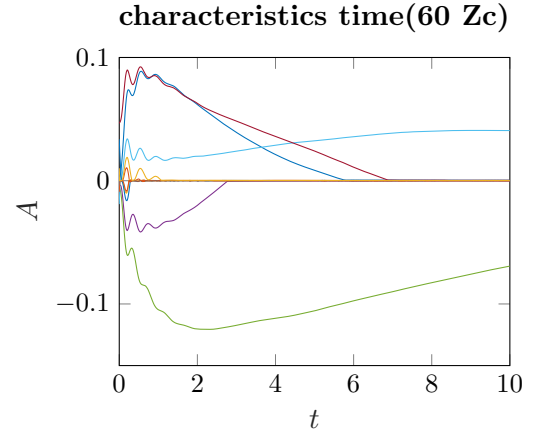
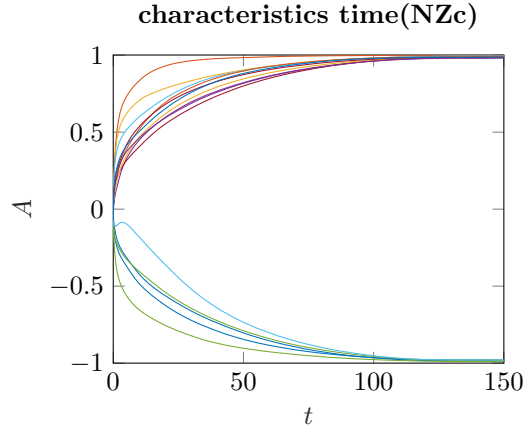
A	Nz	η	m	n	σ
1	15	15	90	512	0.0020



2.19 sim 4.80

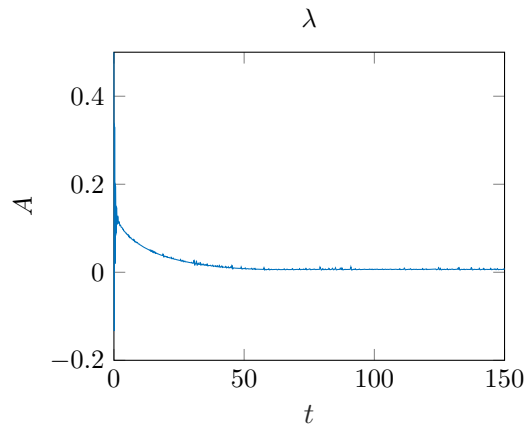
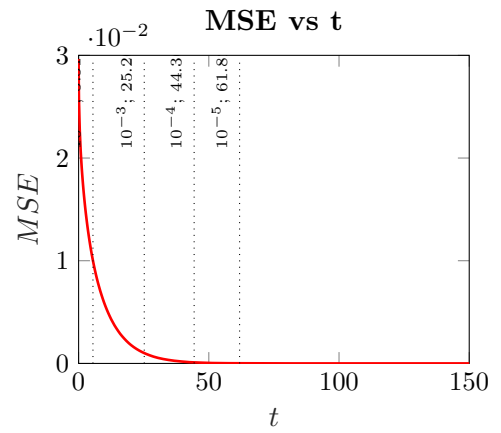
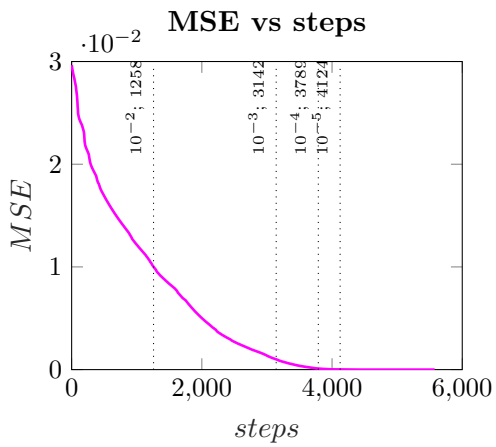
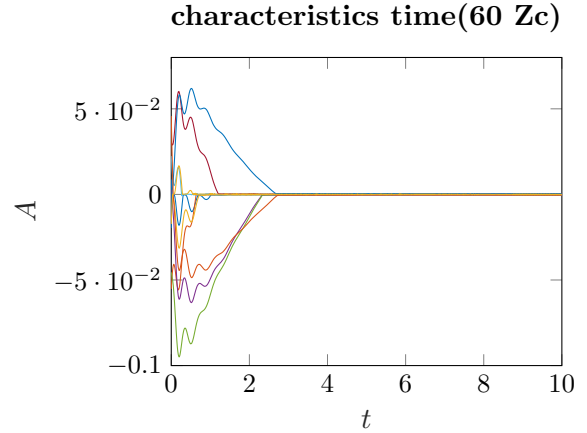
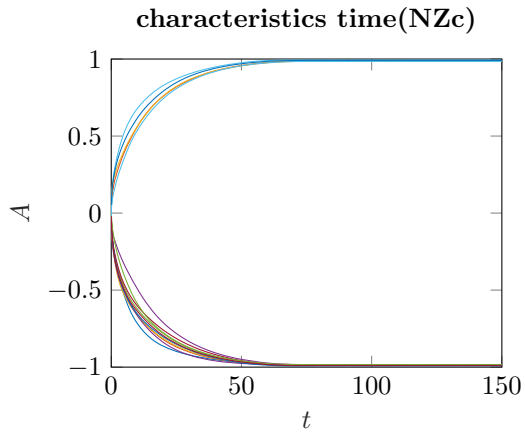
k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	6.0672E-06	00 : 35 : 30	150.00	6630	4.80

A	Nz	η	m	n	σ
1	15	15	100	512	0.0020



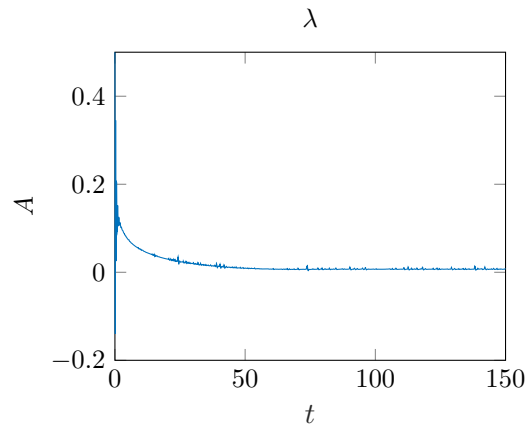
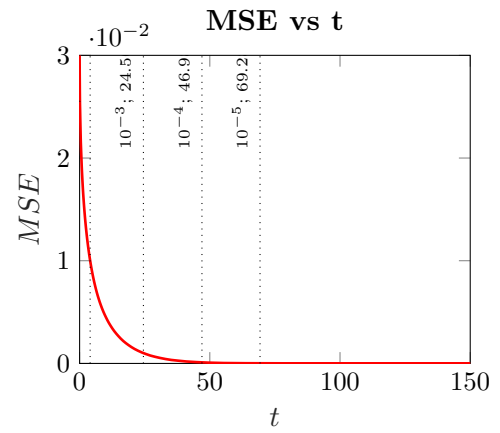
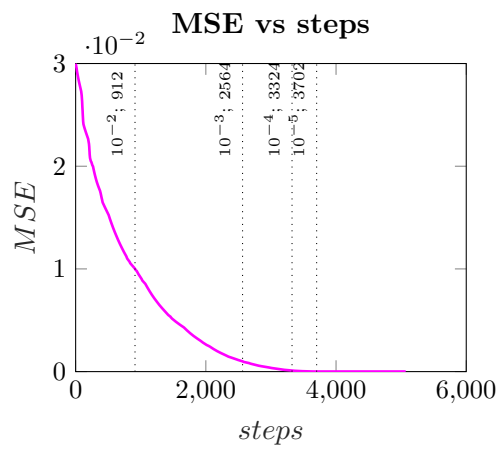
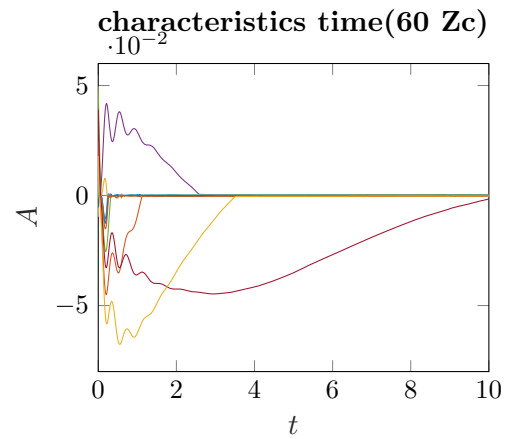
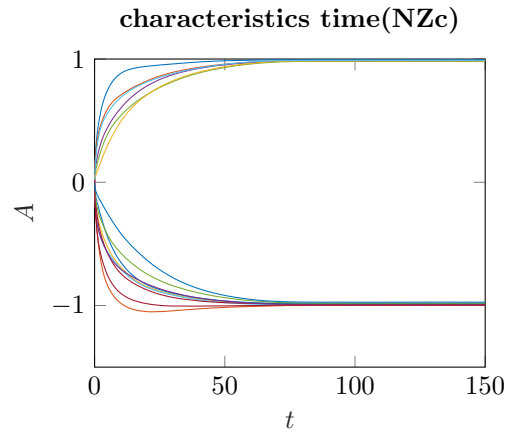
2.20 sim 4.81

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	4.6313E-06	00 : 29 : 34	150.00	5576	4.81
A	Nz	η	m	n	σ	
1	15	15	110	512	0.0020	



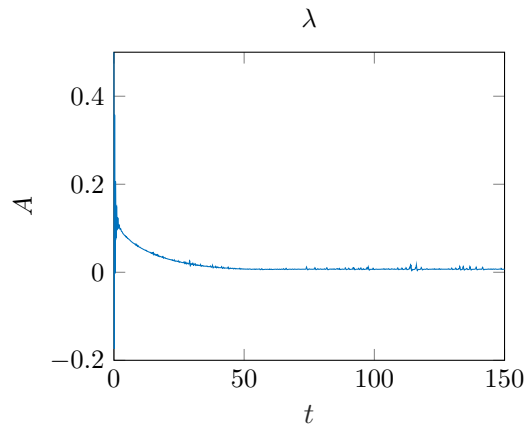
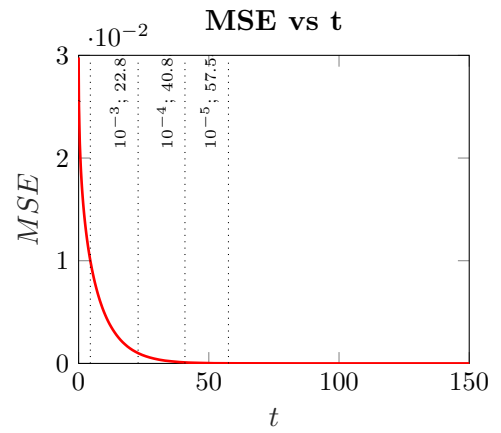
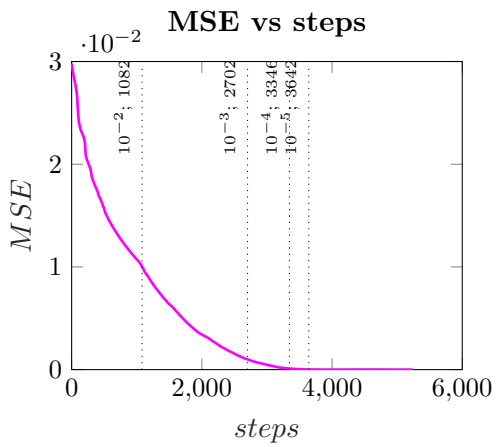
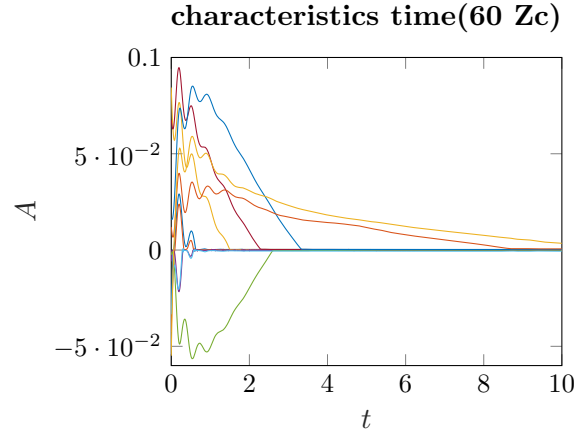
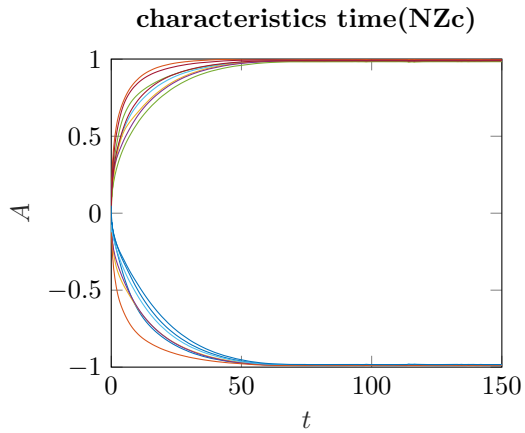
2.21 sim 4.82

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	5.8835E-06	00 : 26 : 46	150.00	5070	4.82
A	Nz	η	m	n	σ	
1	15	15	120	512	0.0020	



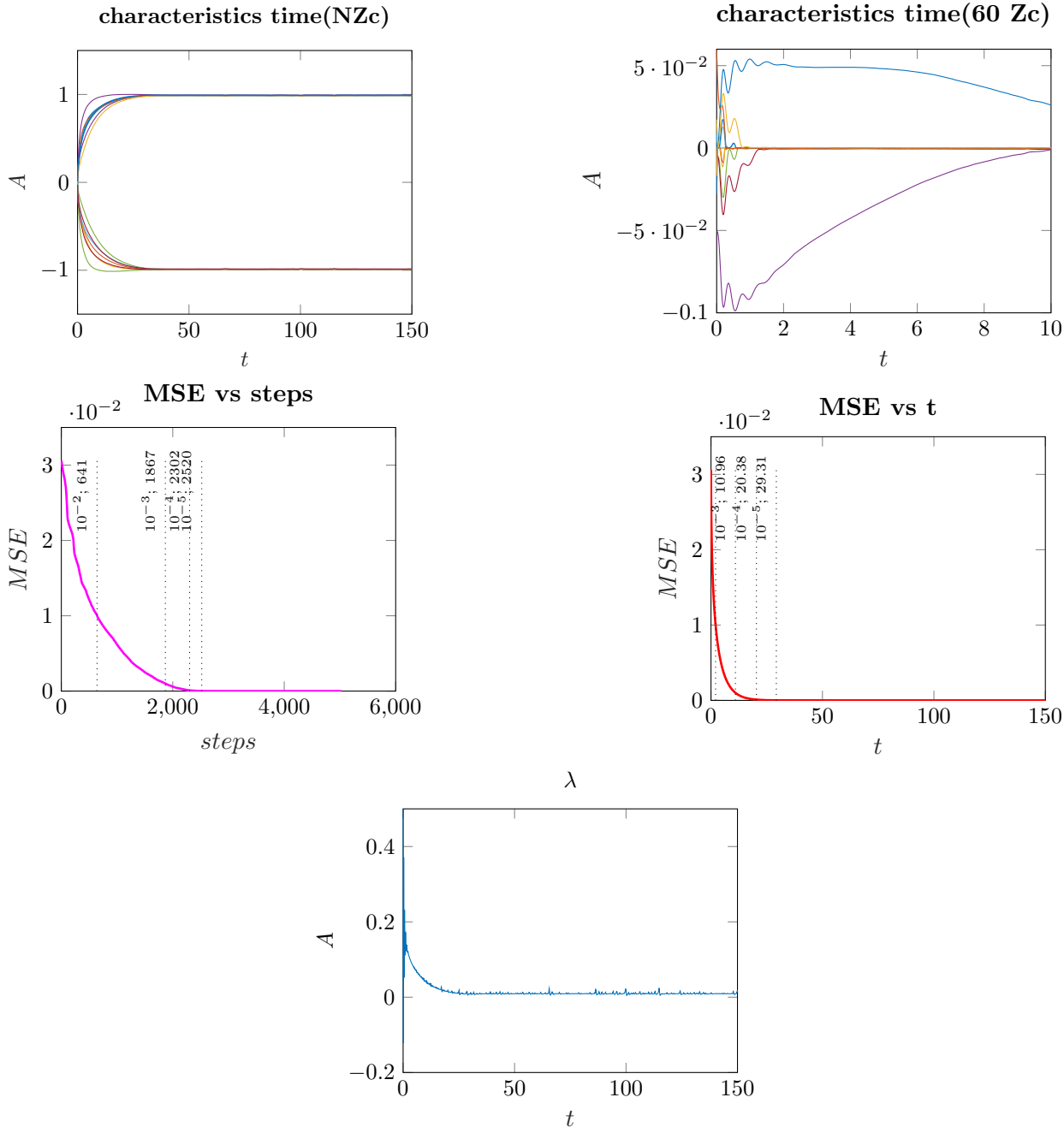
2.22 sim 4.83

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	4.4053E-06	00 : 27 : 41	150.00	5241	4.83
<hr/>						
A	Nz	η	m	n	σ	
1	15	15	130	512	0.0020	



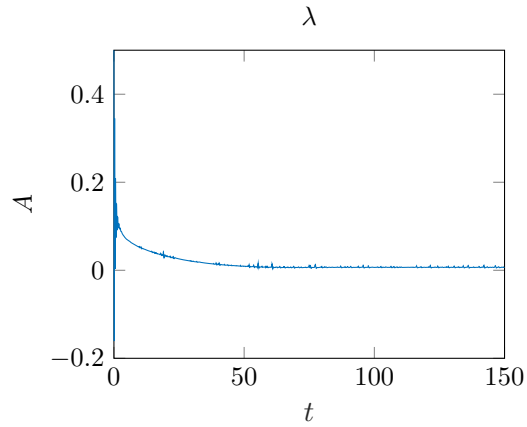
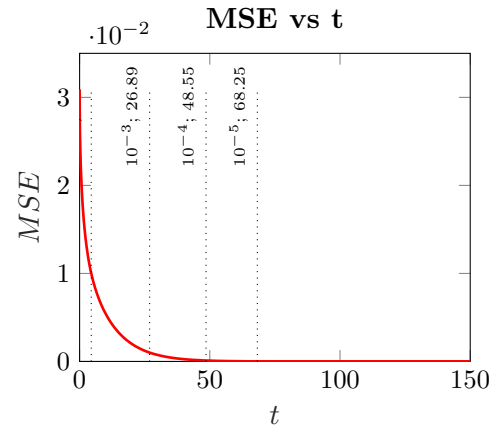
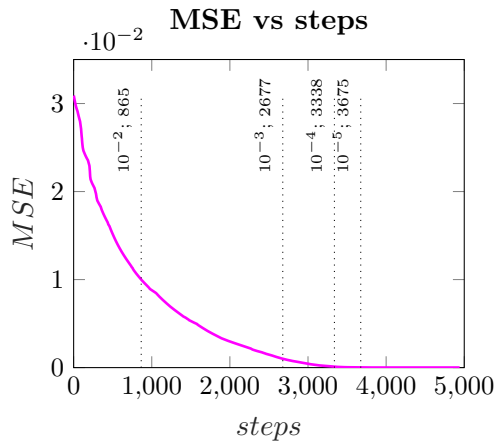
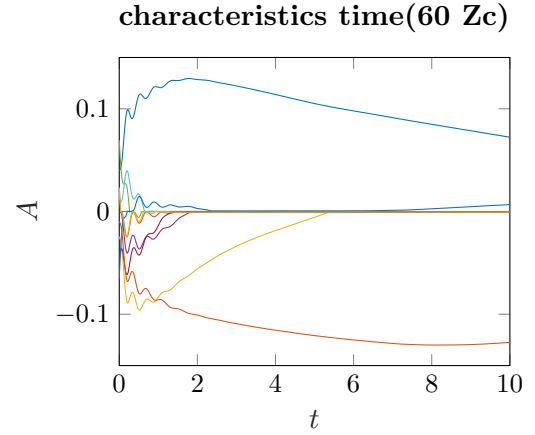
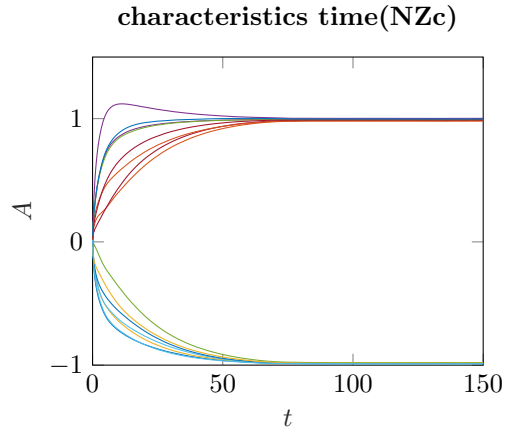
2.23 sim 4.84

k	ϕ	MSE		ExTime		t_{max}	steps	id
5000	U	4.3967E-06		00 : 26 : 45		150.00	5023	4.84
<hr/>								
		A	Nz	η	m	n	σ	
		1	15	15	140	512	0.0020	



2.24 sim 4.85

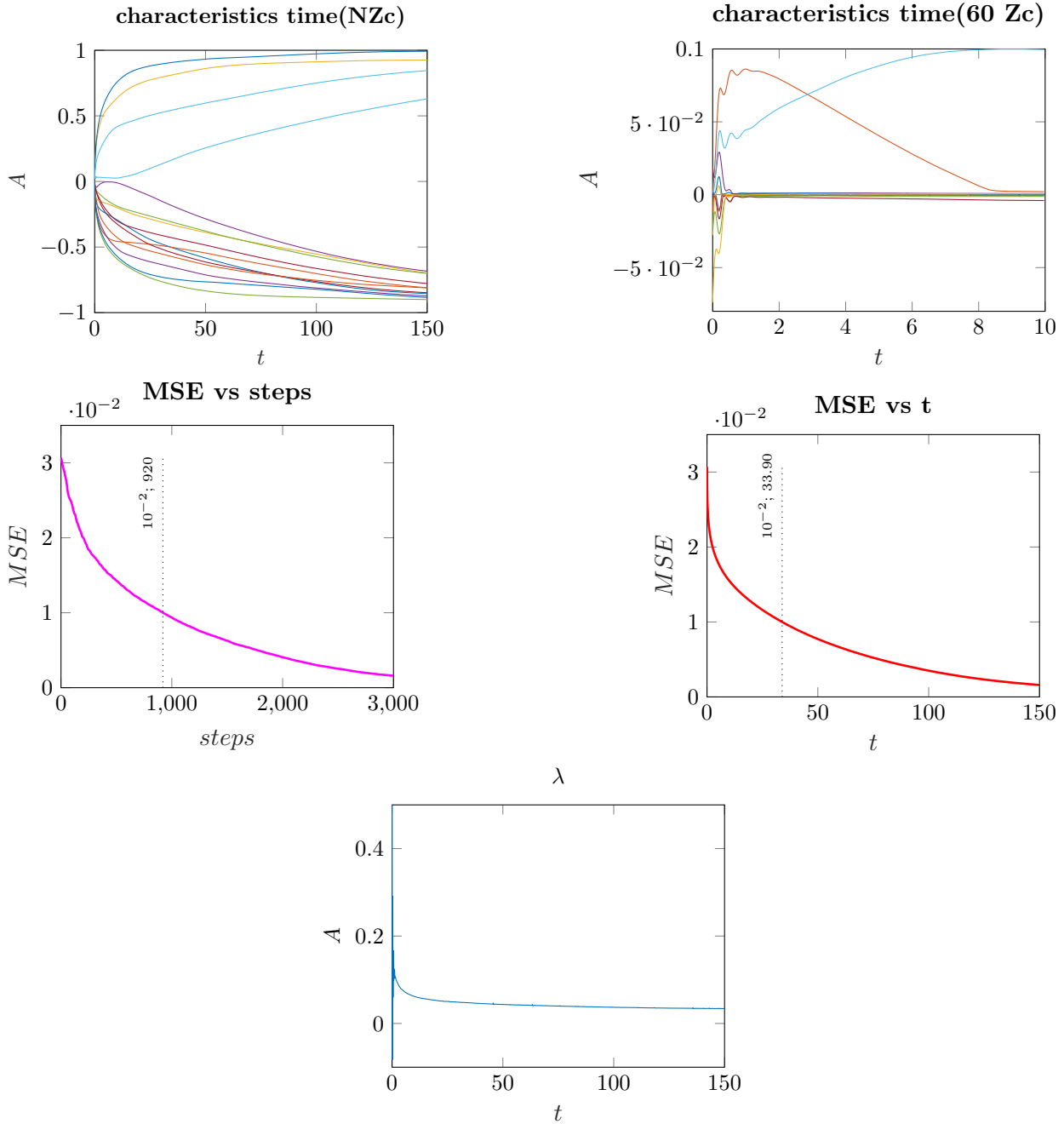
k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$5.2360E-06$	00 : 26 : 16	150.00	4941	4.85
A	Nz	η	m	n	σ	
1	15	15	150	512	0.0020	



2.25 sim 4.74

k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	1.5943E-03	00 : 16 : 57	150.00	2999	4.74

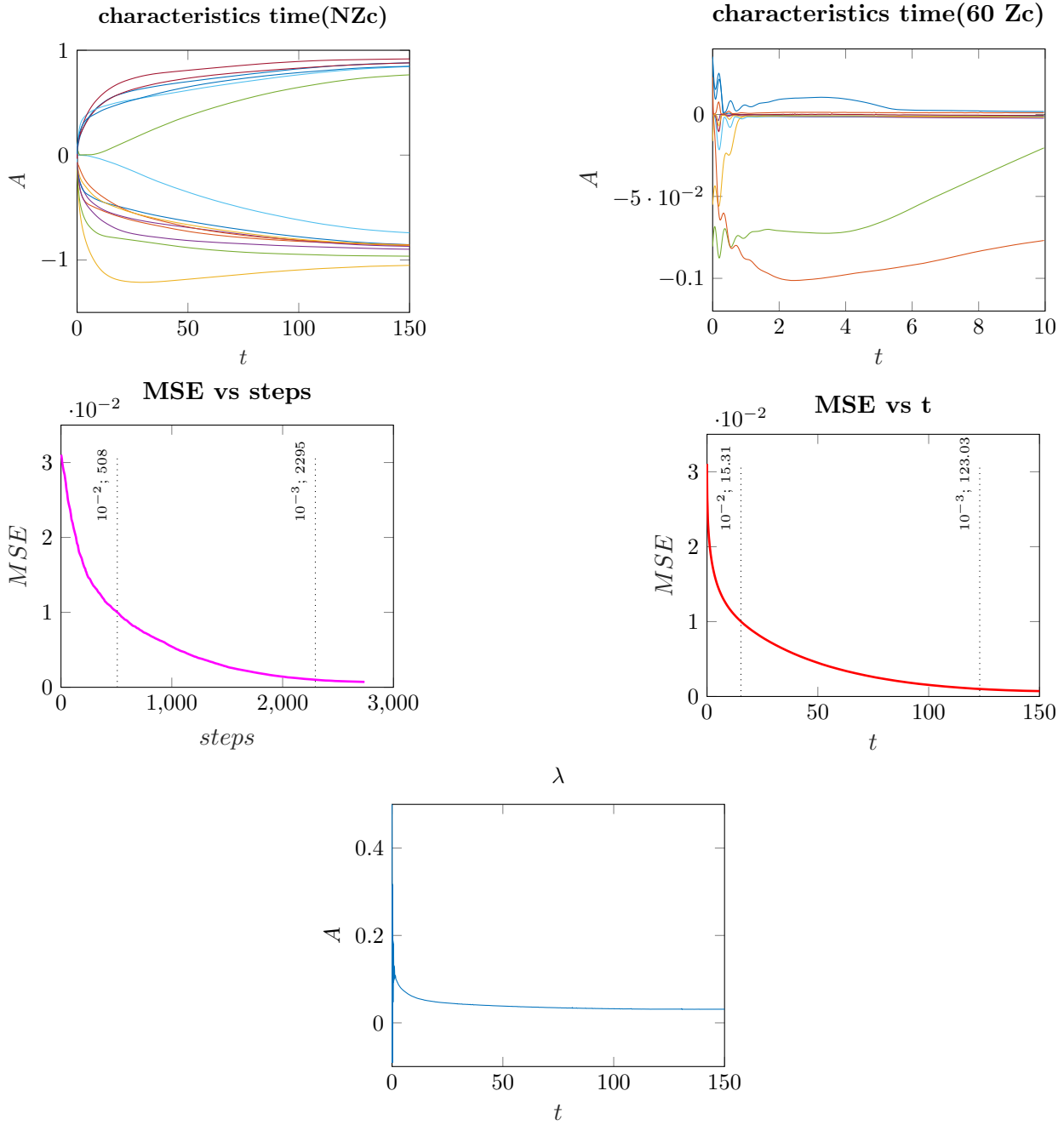
A	Nz	η	m	n	σ
1	15	15	80	512	0.0200



2.26 sim 4.75

k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	7.1687E-04	00 : 15 : 14	150.00	2739	4.75

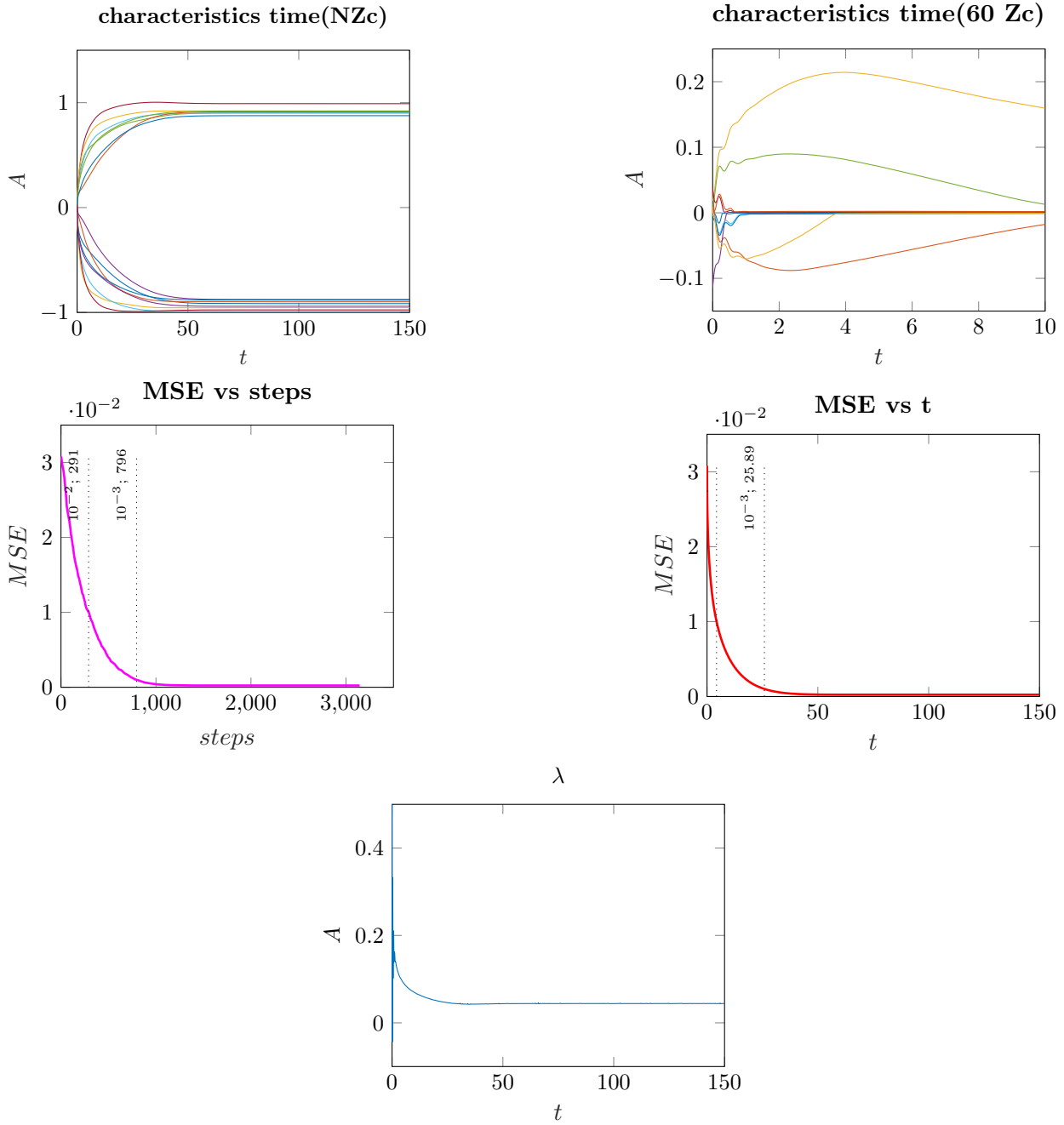
A	Nz	η	m	n	σ
1	15	15	90	512	0.0200



2.27 sim 4.68

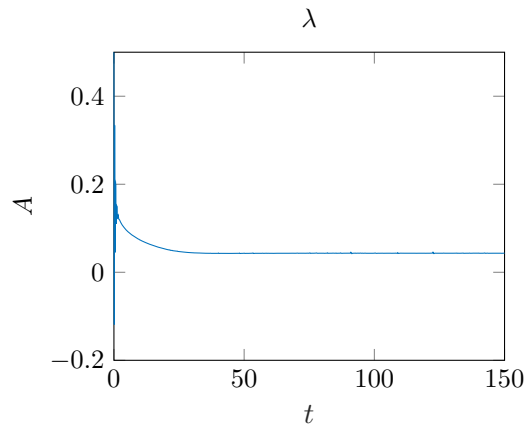
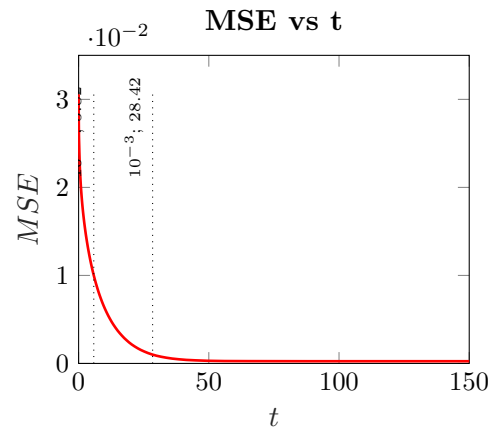
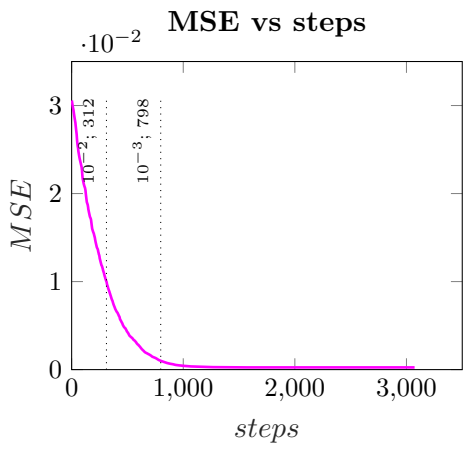
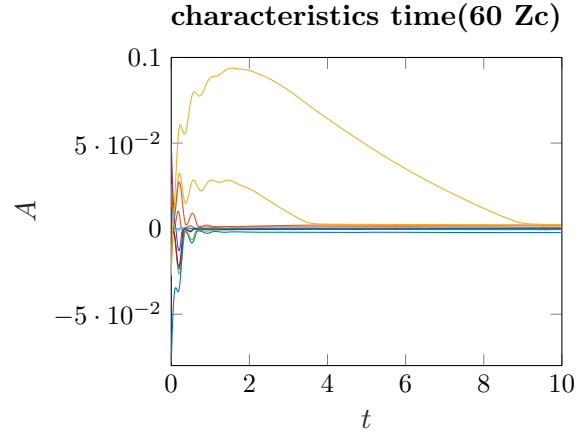
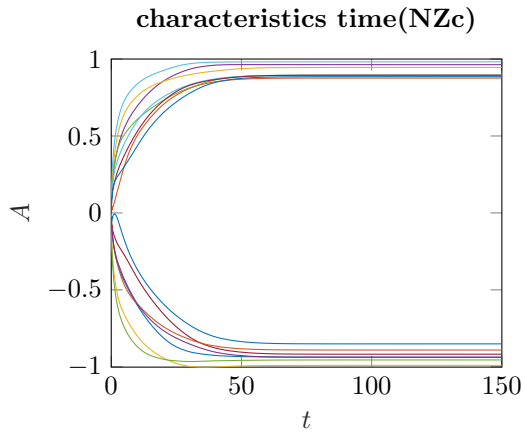
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$2.3504E-04$	00 : 17 : 40	150.00	3144	4.68

A	Nz	η	m	n	σ
1	15	15	100	512	0.0200



2.28 sim 4.69

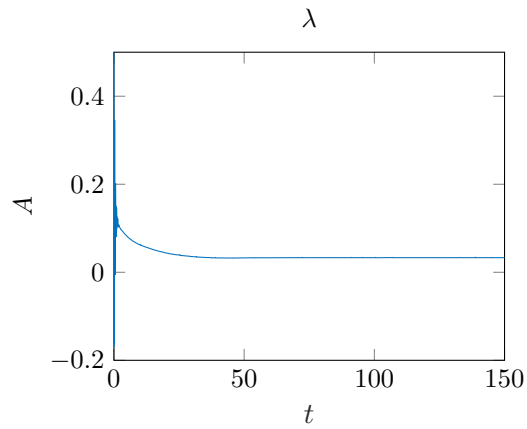
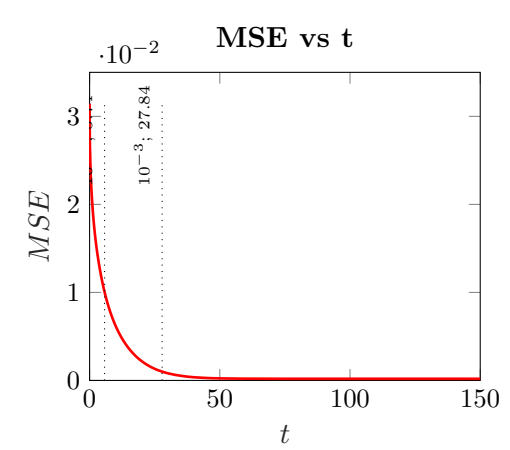
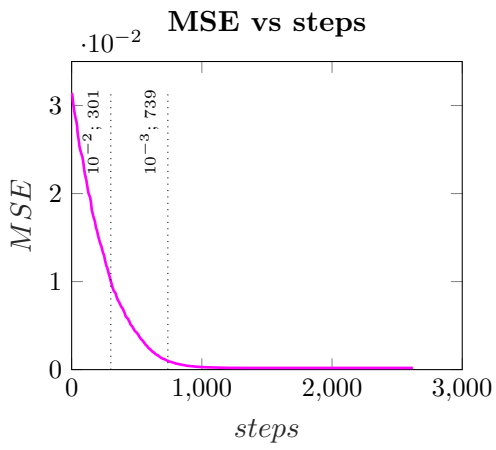
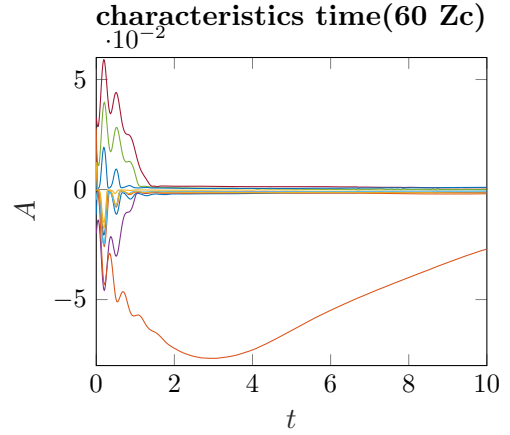
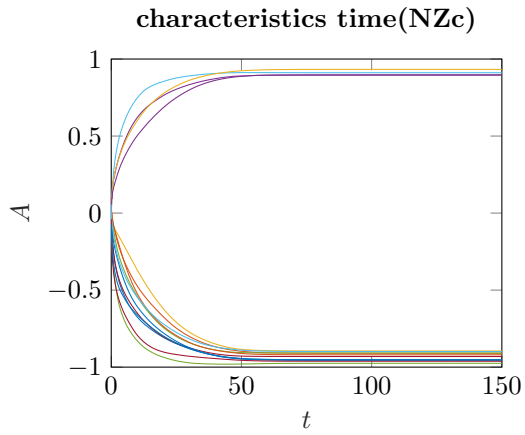
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	2.5102E-04	00 : 17 : 13	150.00	3073	4.69
<hr/>						
A	Nz	η	m	n	σ	
1	15	15	110	512	0.0200	



2.29 sim 4.70

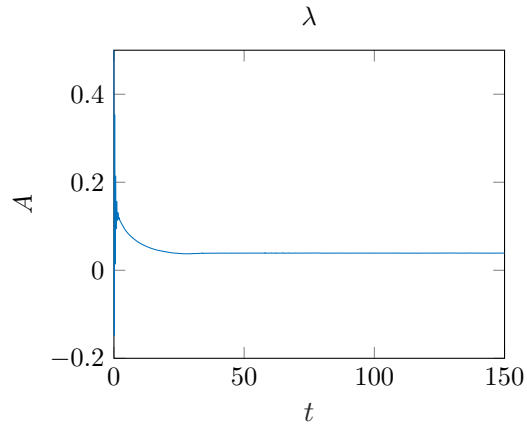
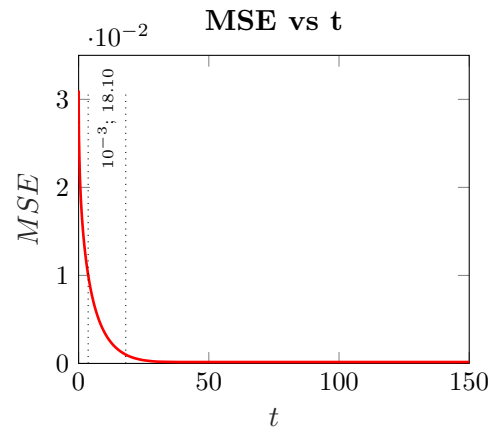
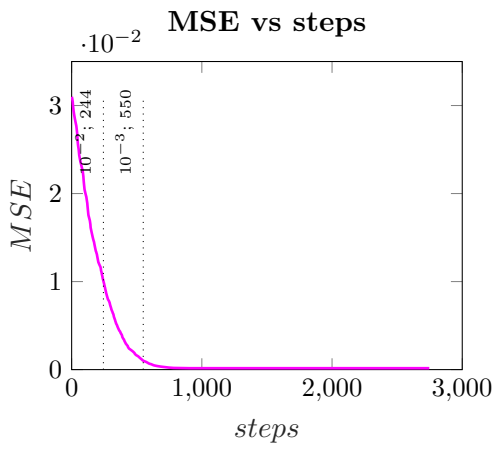
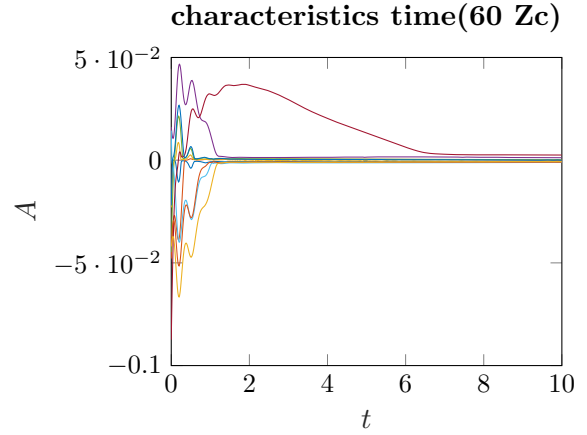
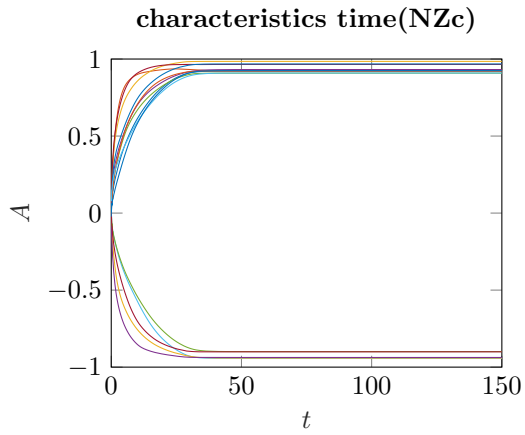
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	1.9138E-04	00 : 14 : 37	150.00	2621	4.70

A	Nz	η	m	n	σ
1	15	15	120	512	0.0200



2.30 sim 4.71

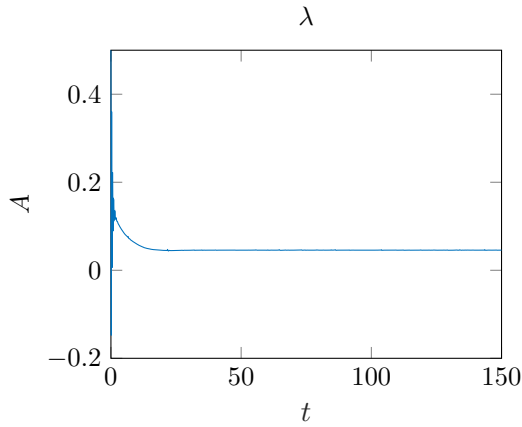
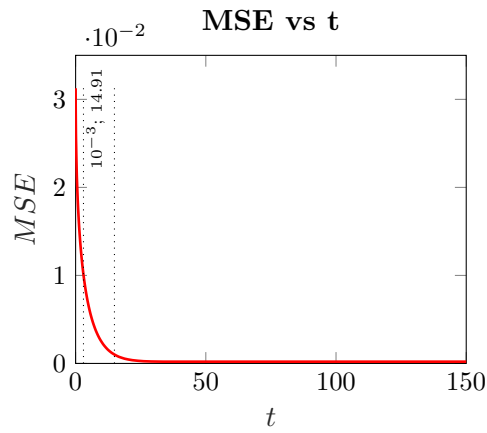
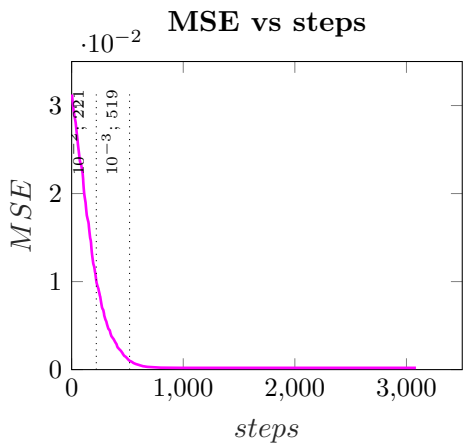
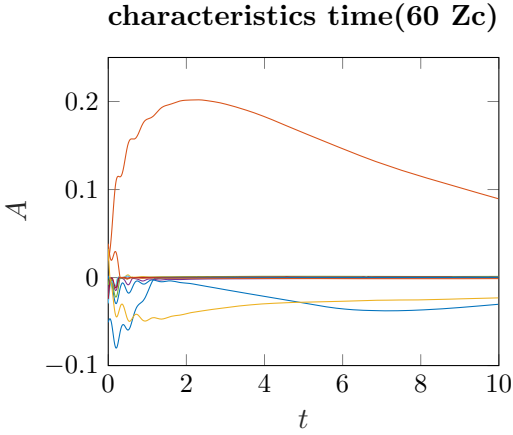
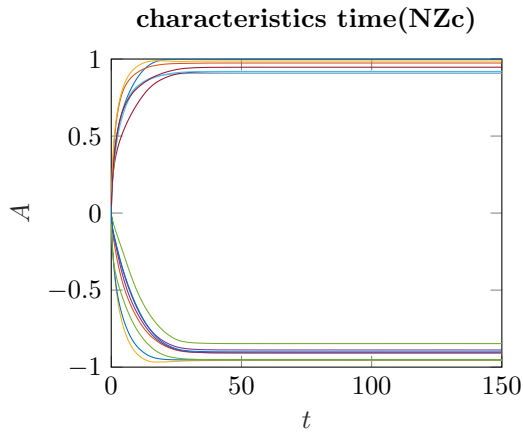
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$1.6162E-04$	00 : 15 : 27	150.00	2747	4.71
<hr/>						
A	Nz	η	m	n	σ	
1	15	15	130	512	0.0200	



2.31 sim 4.72

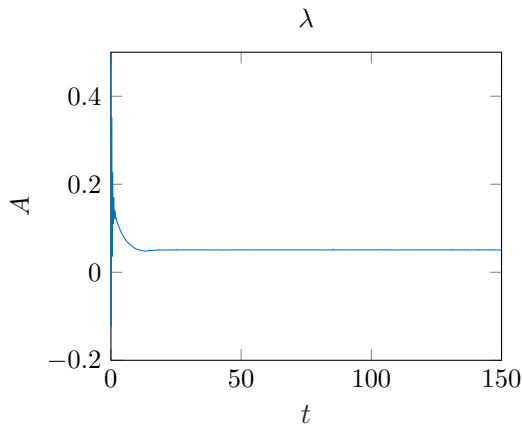
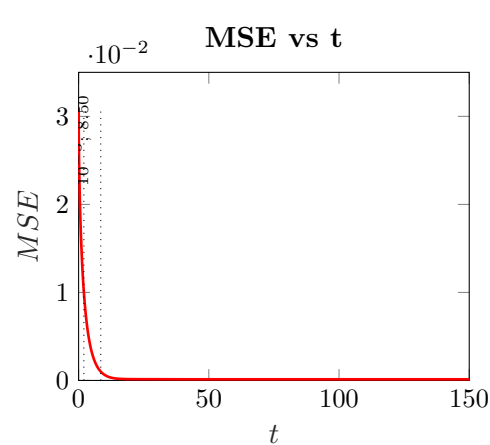
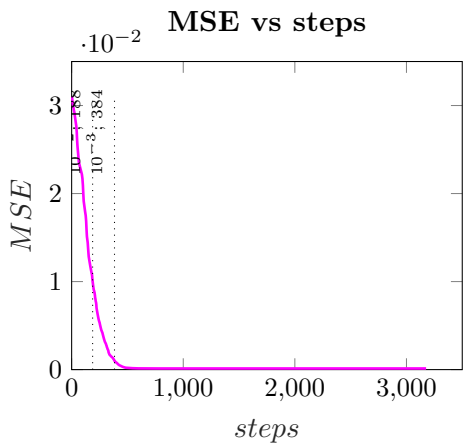
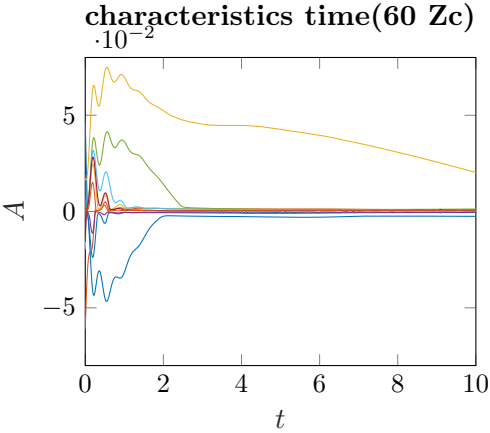
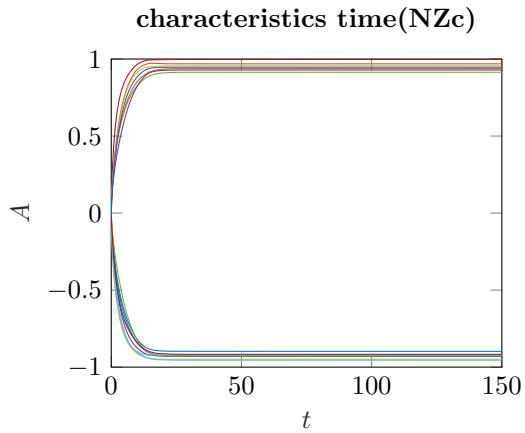
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	1.9532E-04	00 : 17 : 08	150.00	3085	4.72

A	Nz	η	m	n	σ
1	15	15	140	512	0.0200



2.32 sim 4.73

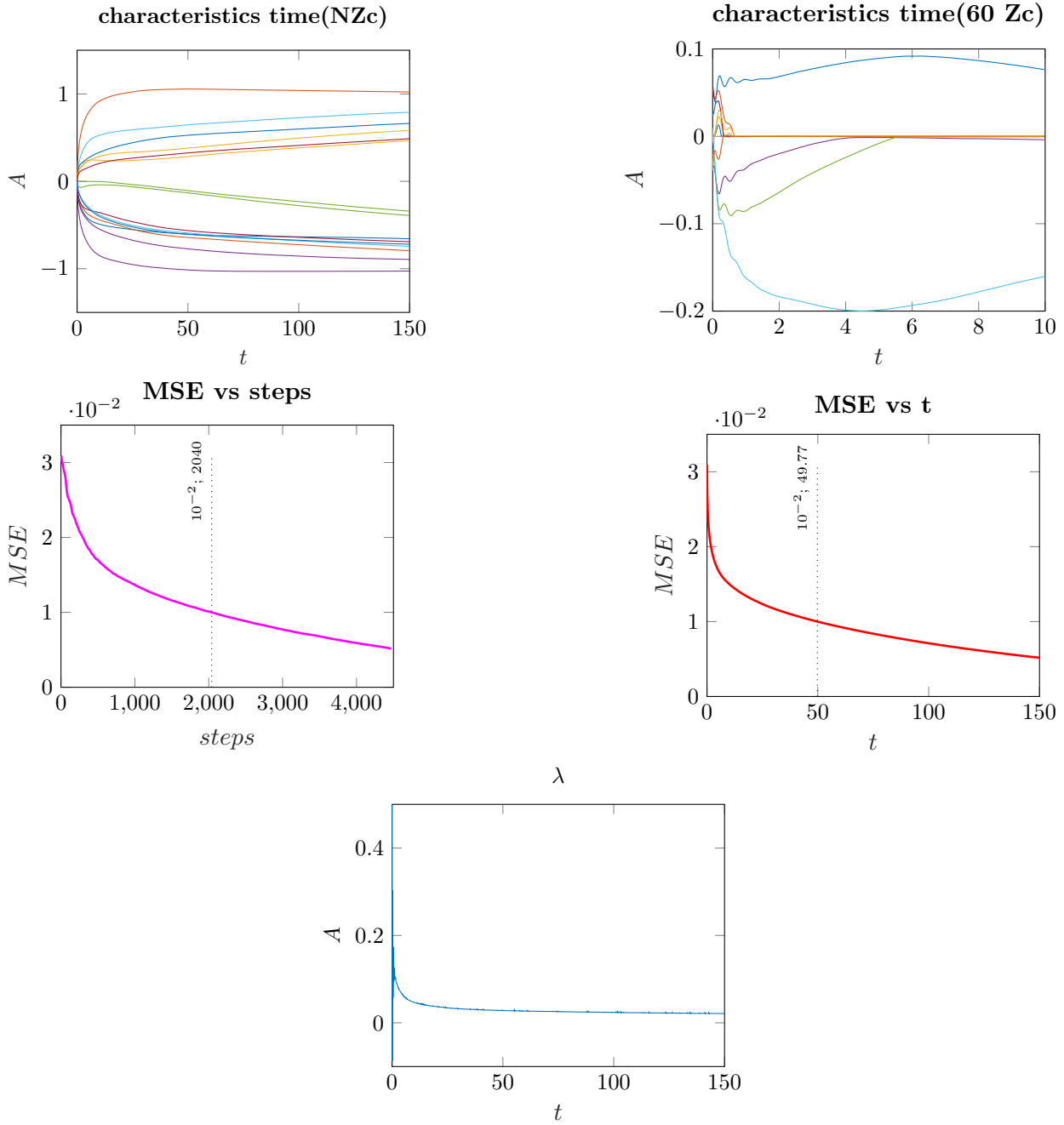
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	1.3470E-04	00 : 17 : 44	150.00	3176	4.73
A	Nz	η	m	n	σ	
1	15	15	150	512	0.0200	



2.33 sim 4.61

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	5.1712E-03	00 : 24 : 47	150.00	4467	4.61

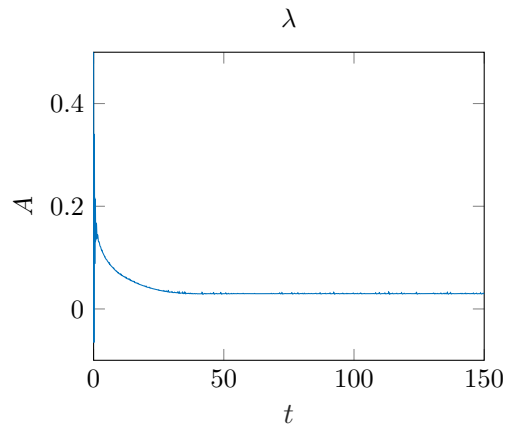
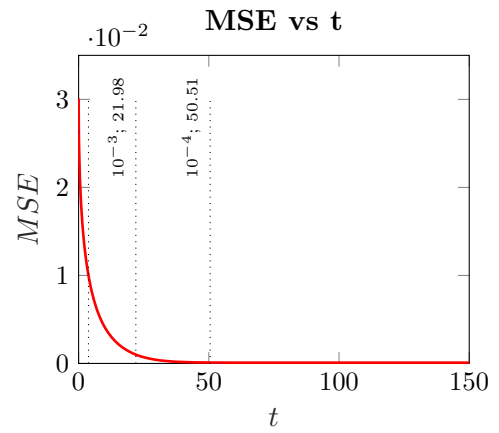
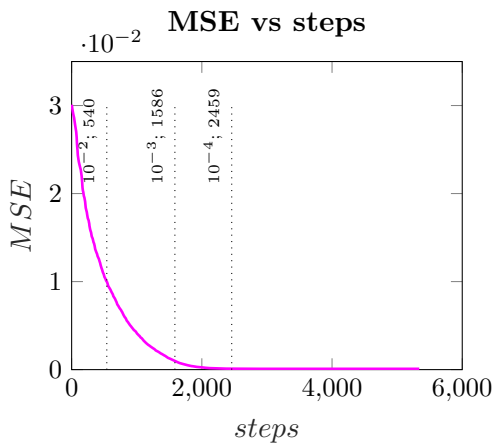
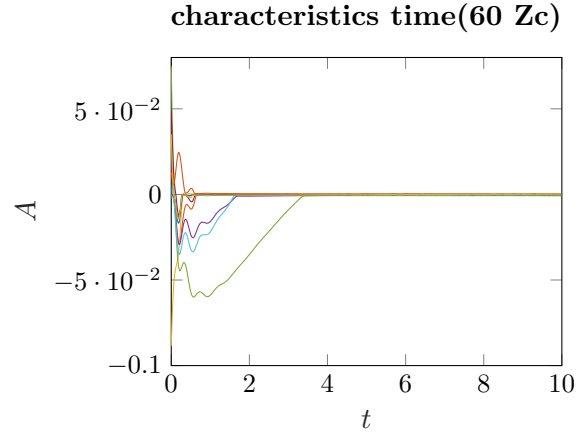
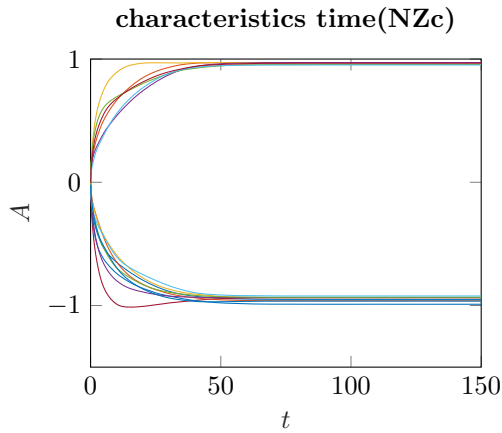
A	Nz	η	m	n	σ
1	15	15	80	512	0.0200



2.34 sim 4.62

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	8.5080E-05	00 : 29 : 18	150.00	5340	4.62

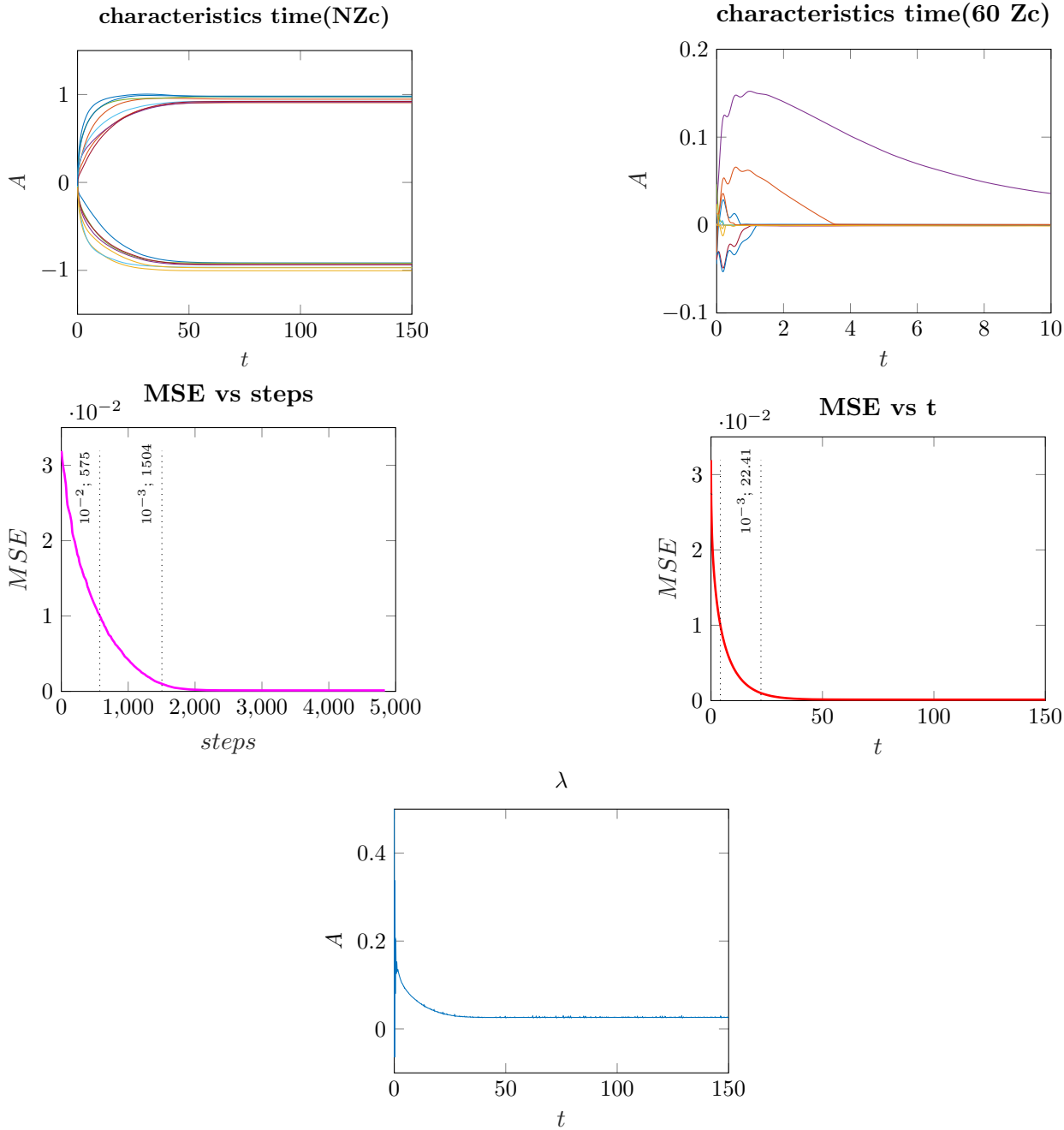
A	Nz	η	m	n	σ
1	15	15	90	512	0.0200



2.35 sim 4.55

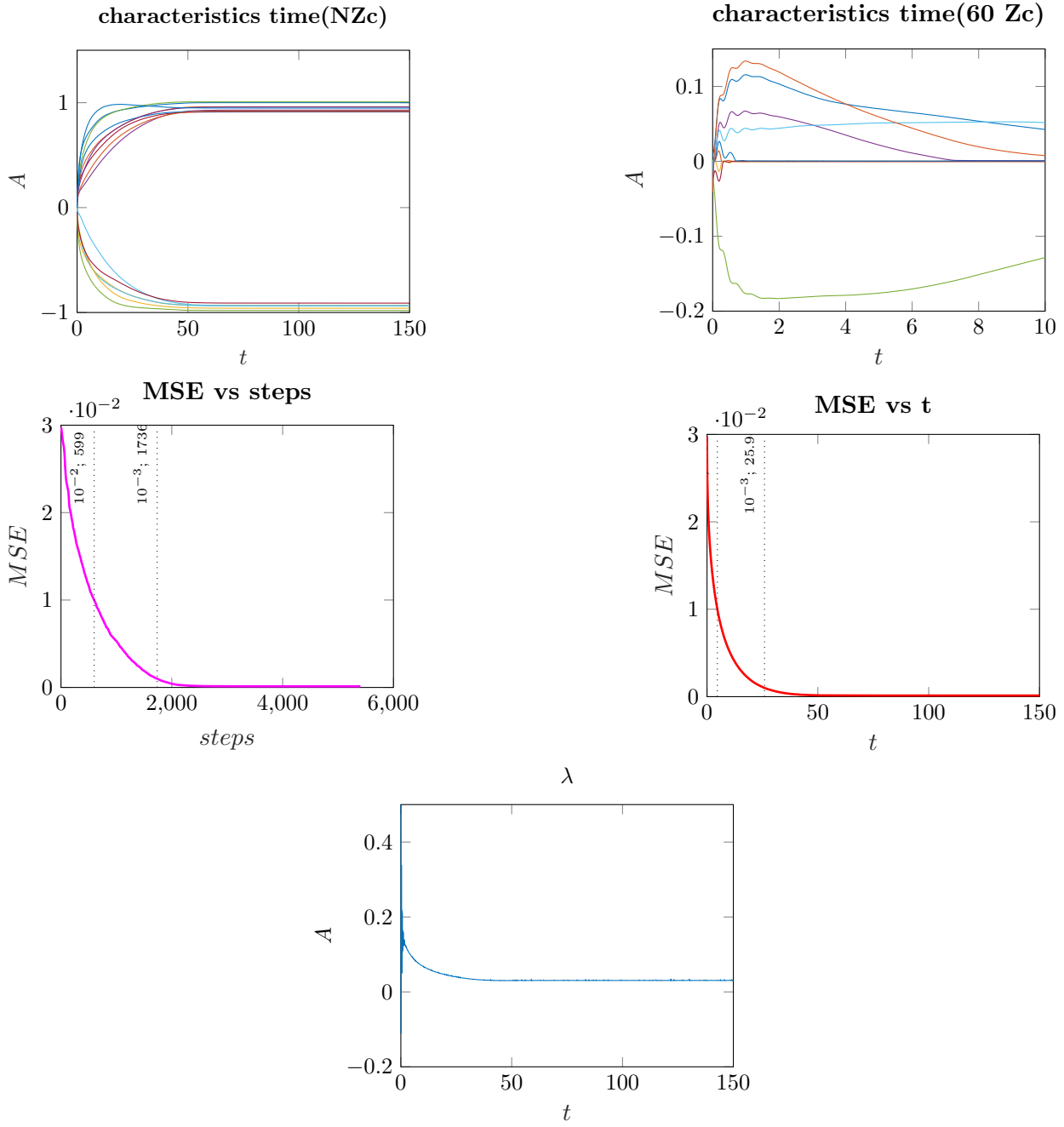
k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	1.3296E-04	00 : 26 : 33	150.00	4838	4.55

A	Nz	η	m	n	σ
1	15	15	100	512	0.0200



2.36 sim 4.56

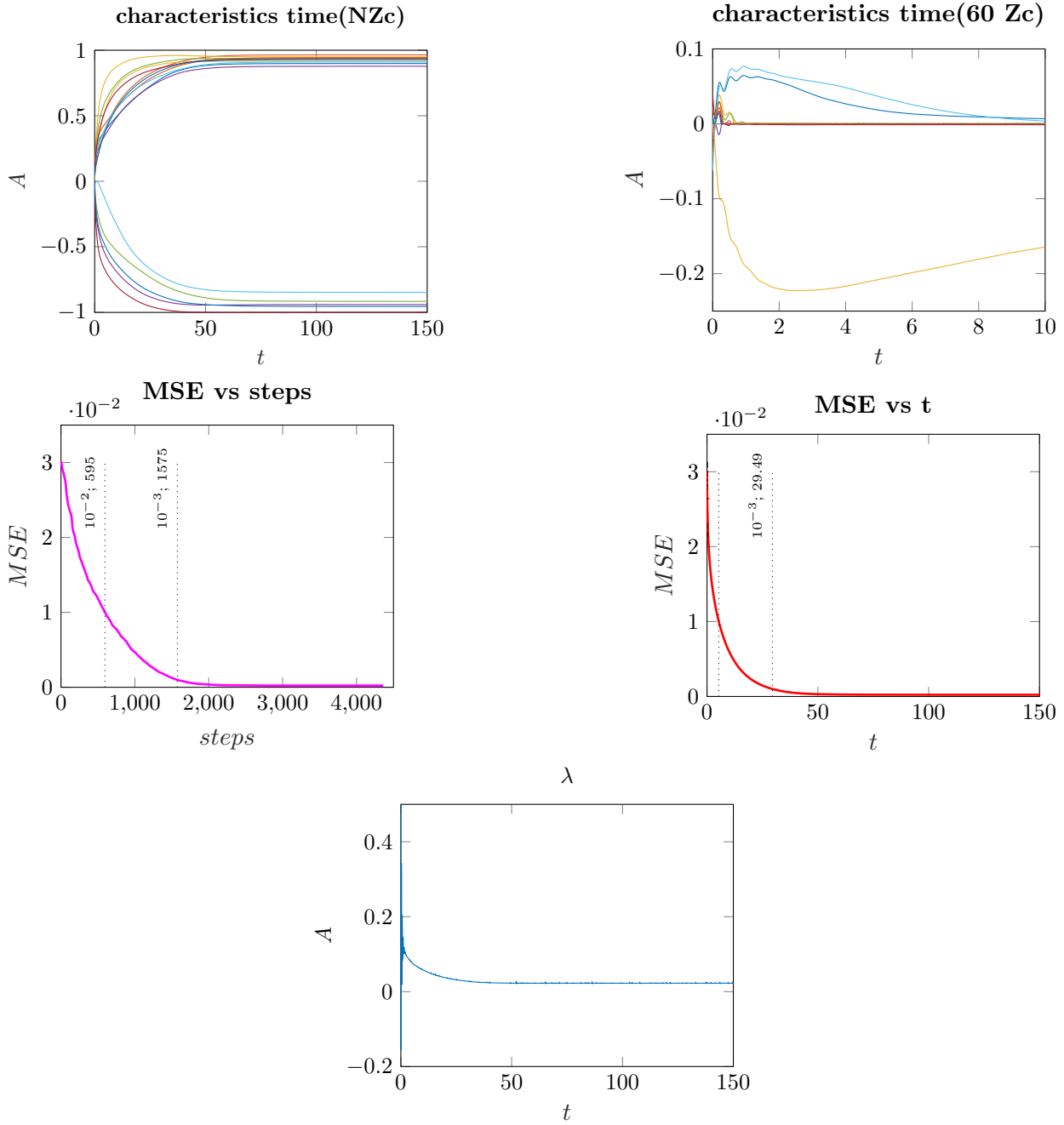
k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	1.3145E-04	00 : 29 : 33	150.00	5403	4.56
A	Nz	η	m	n	σ	
1	15	15	110	512	0.0200	



2.37 sim 4.57

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	2.2780E-04	00 : 23 : 50	150.00	4361	4.57

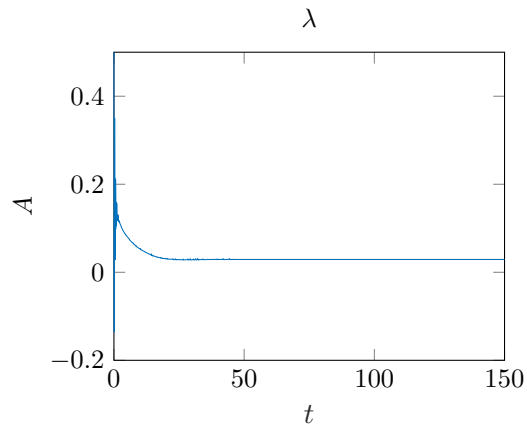
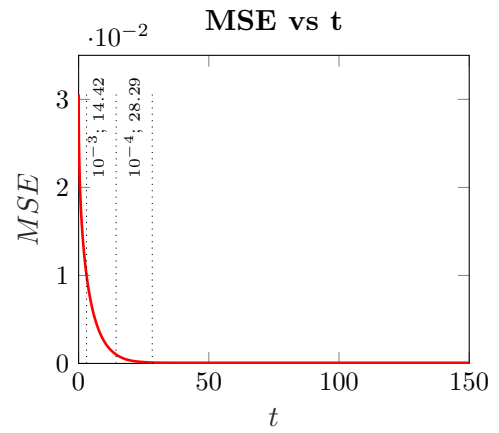
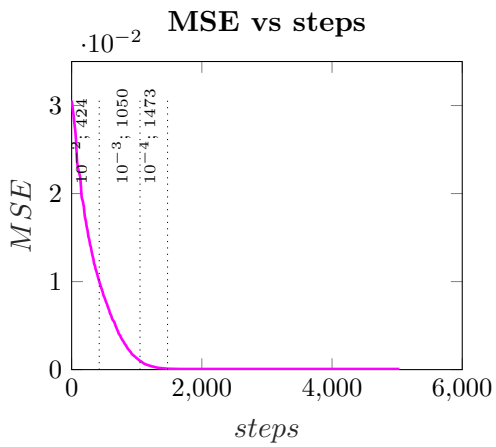
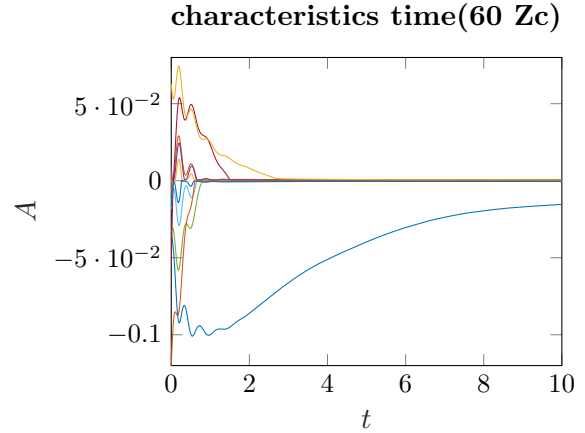
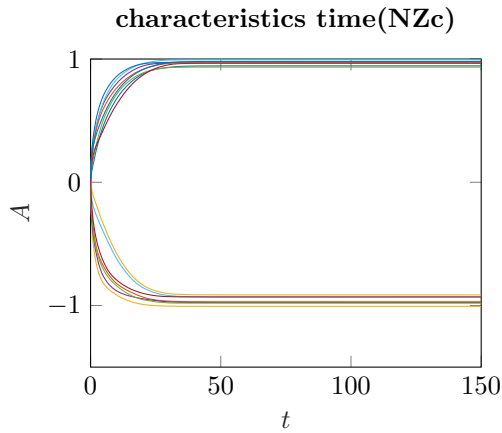
A	Nz	η	m	n	σ
1	15	15	120	512	0.0200



2.38 sim 4.58

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	6.6987E-05	00 : 27 : 42	150.00	5035	4.58

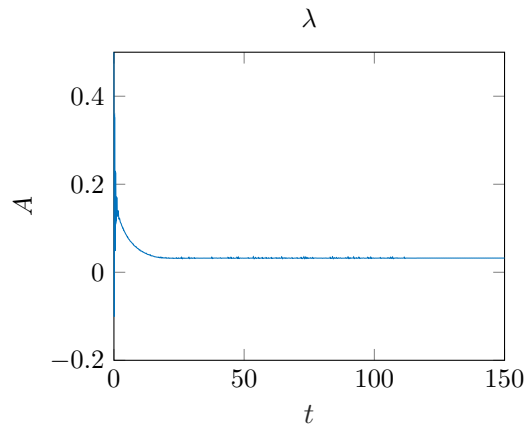
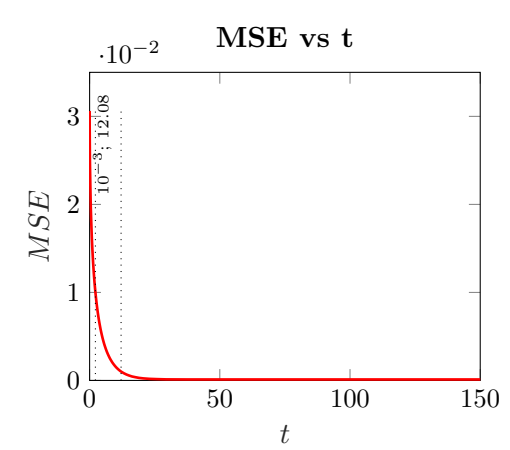
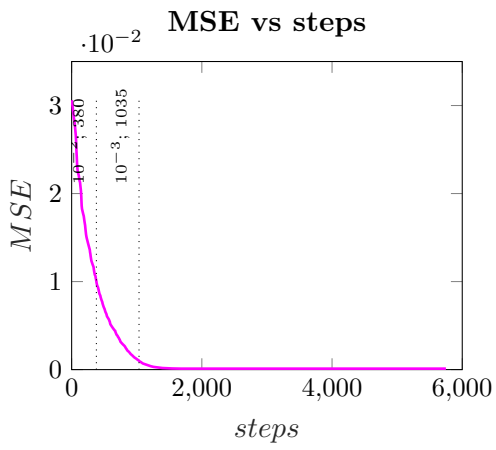
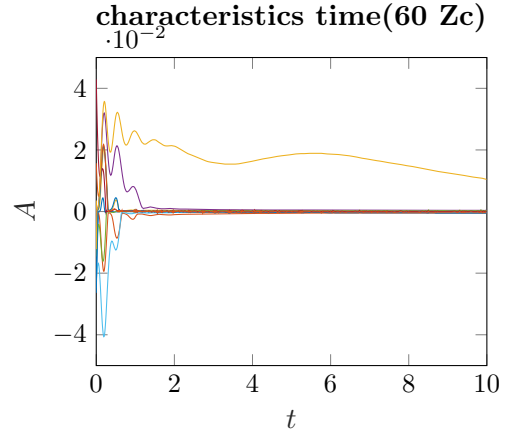
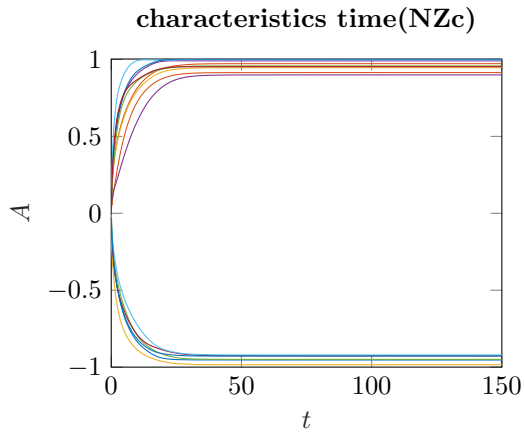
A	Nz	η	m	n	σ
1	15	15	130	512	0.0200



2.39 sim 4.59

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$1.0550E-04$	00 : 31 : 51	150.00	5749	4.59

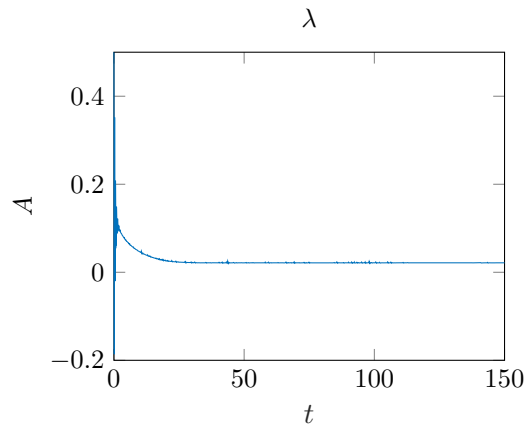
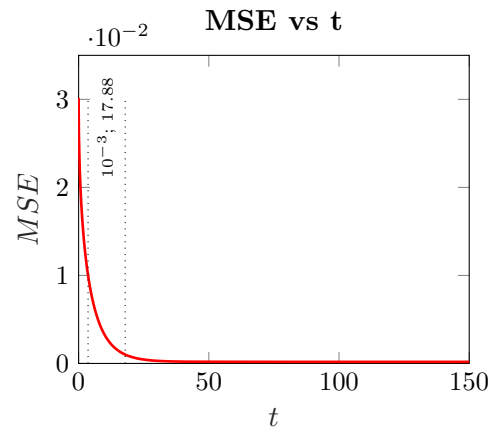
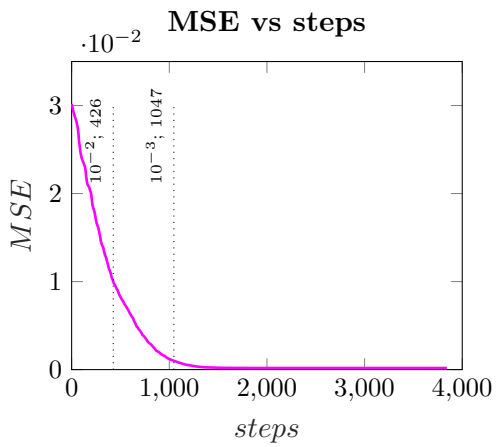
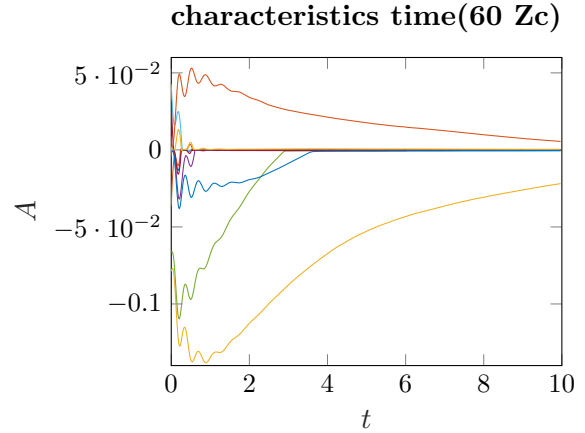
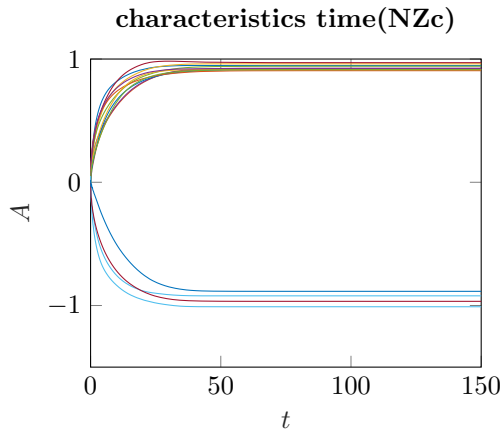
A	Nz	η	m	n	σ
1	15	15	140	512	0.0200



2.40 sim 4.60

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	1.8101E-04	00 : 21 : 57	150.00	3843	4.60

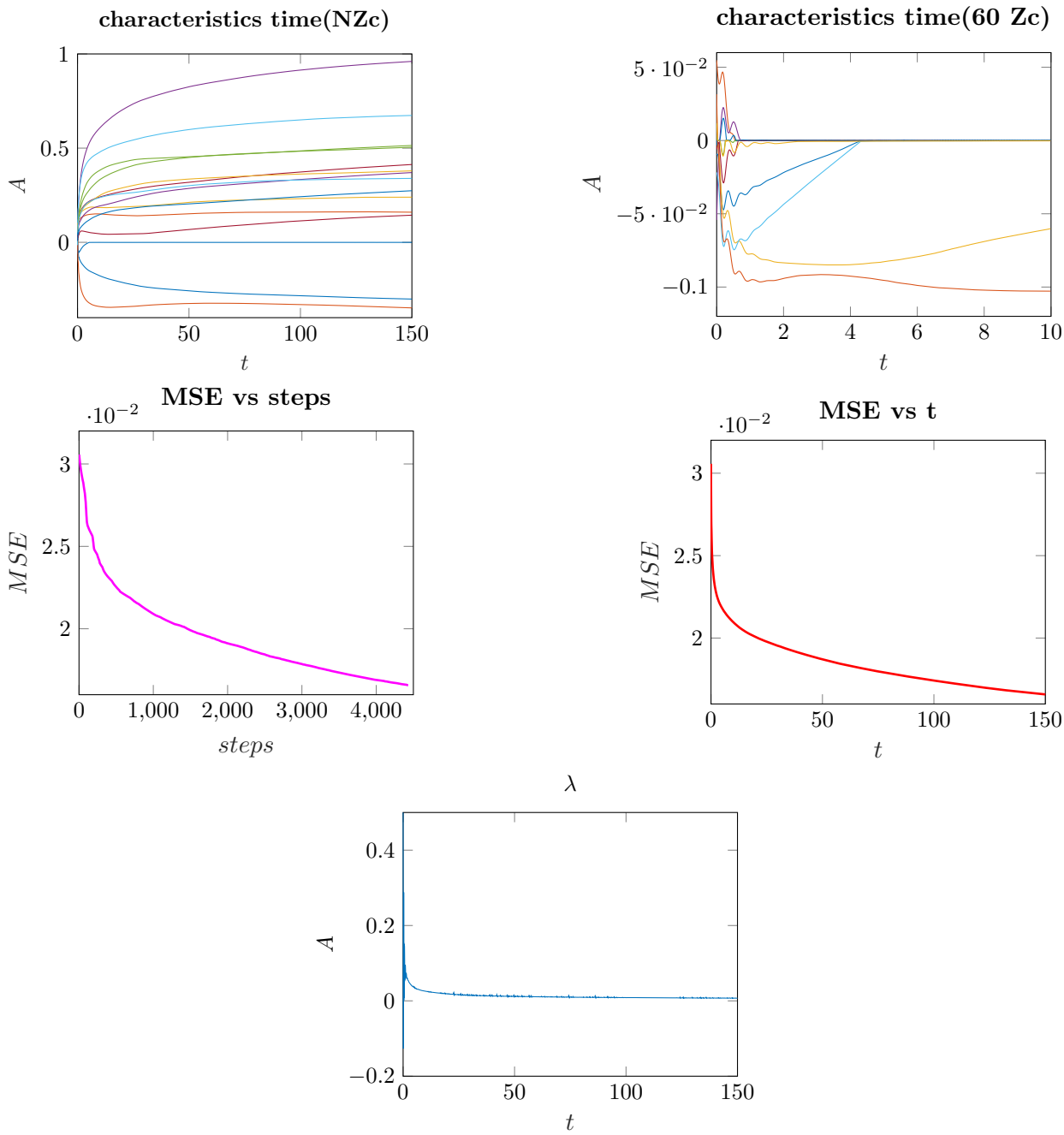
A	Nz	η	m	n	σ
1	15	15	150	512	0.0200



2.41 sim 4.12

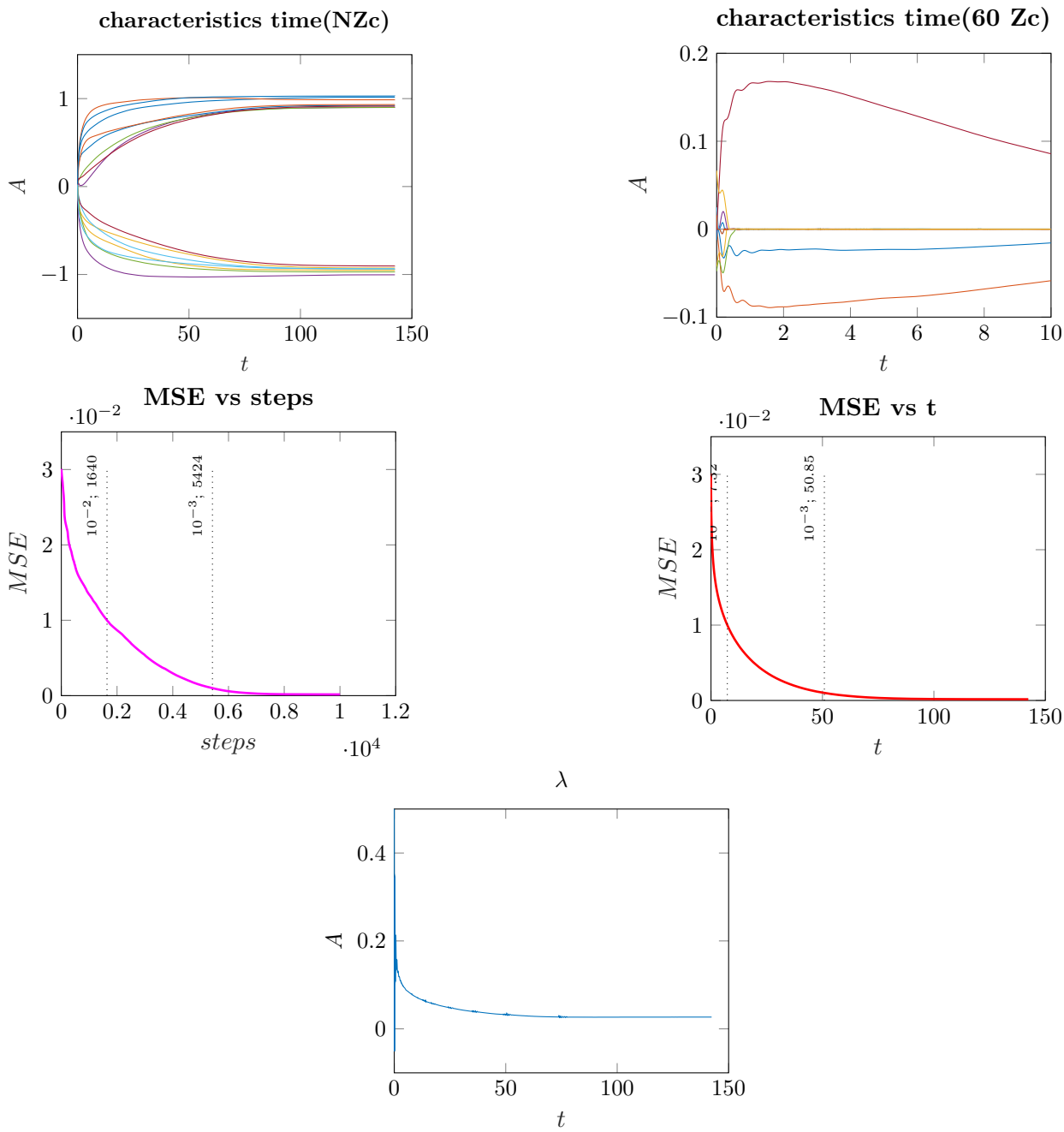
k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	1.6580E-02	00 : 30 : 26	150.00	4430	4.12

A	Nz	η	m	n	σ
1	15	15	80	512	0.0200



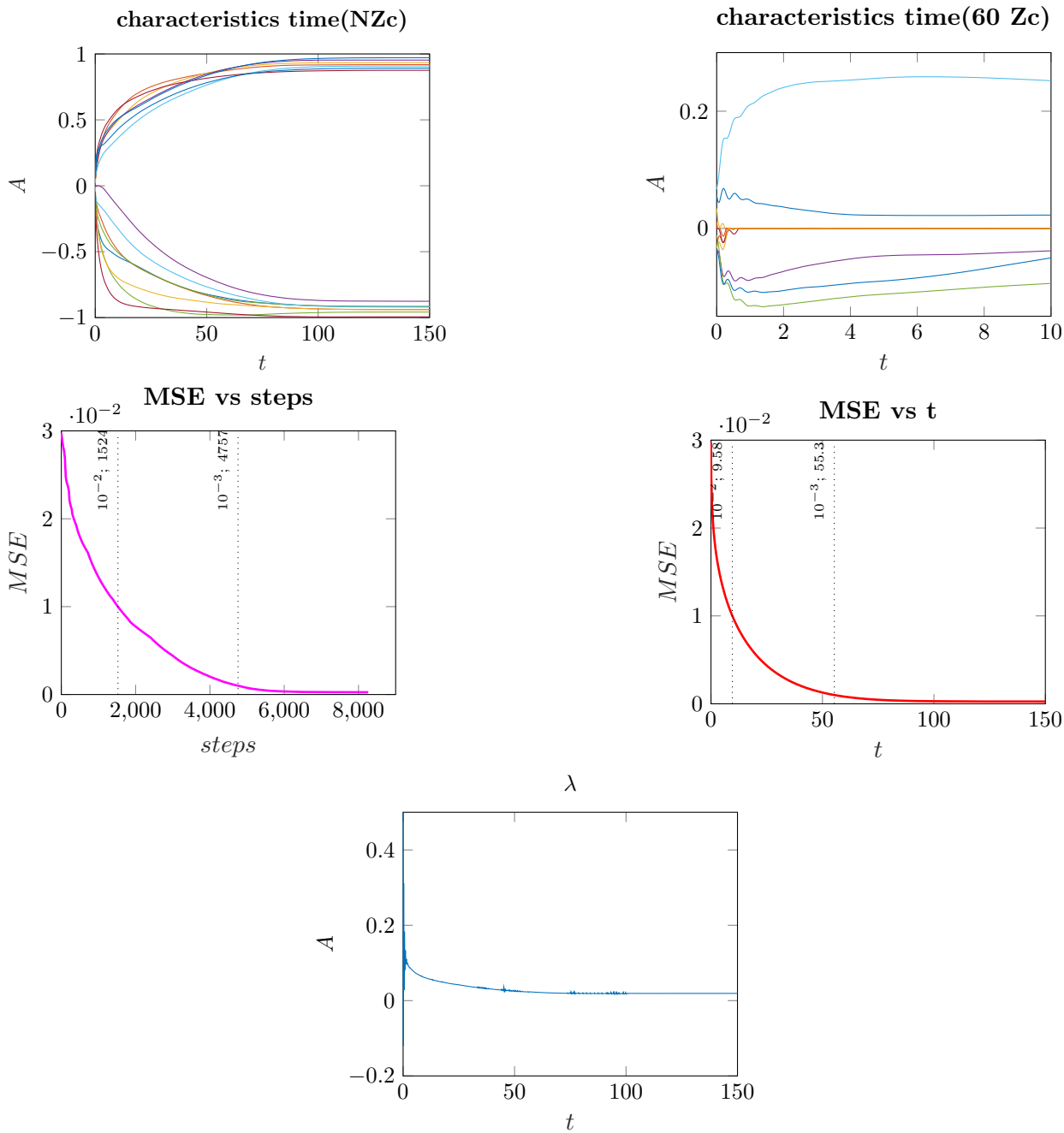
2.42 sim 4.13

k	ϕ	MSE		ExTime		t_{max}	steps	id
5000	U	1.6106E-04		01 : 06 : 21		142.36	10001	4.13
		A	Nz	η	m	n	σ	
		1	15	15	90	512	0.0200	



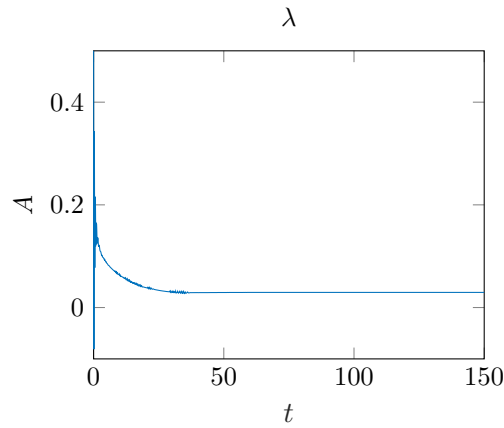
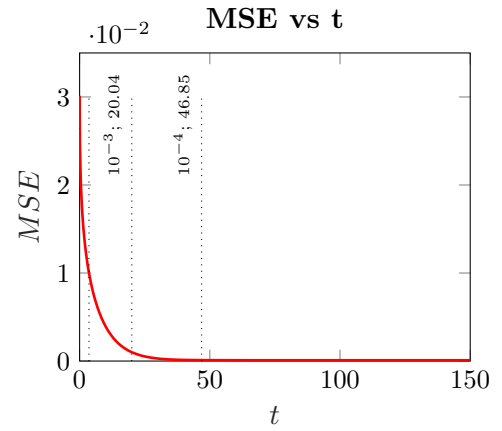
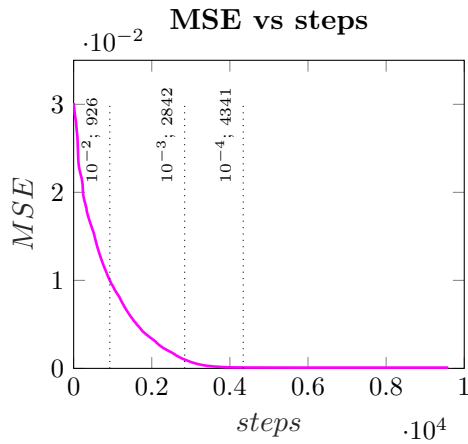
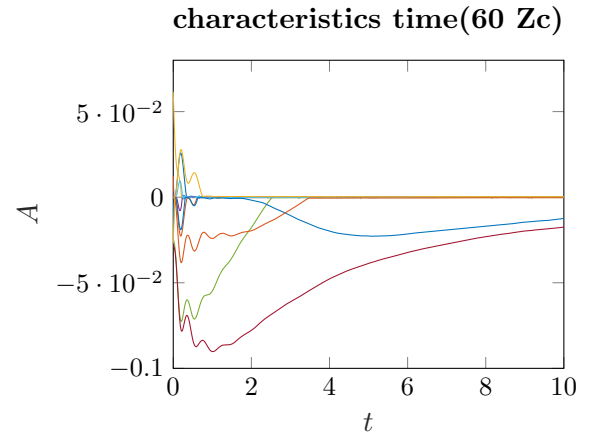
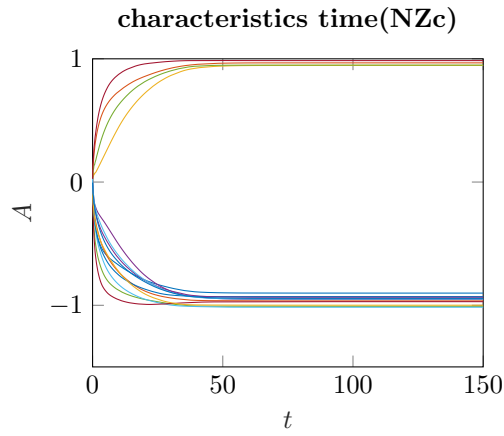
2.43 sim 4.6

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$2.6179E-04$	00 : 54 : 52	150.00	8263	4.6
A	Nz	η	m	n	σ	
1	15	15	100	512	0.0200	



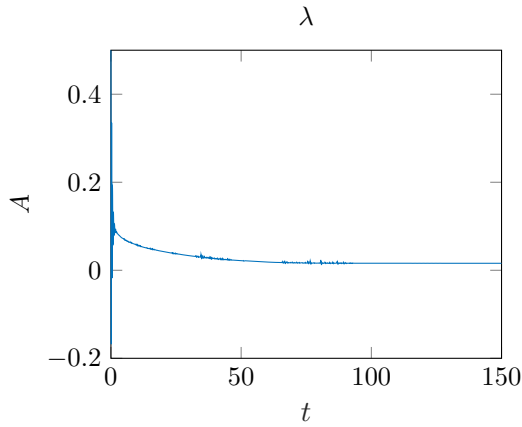
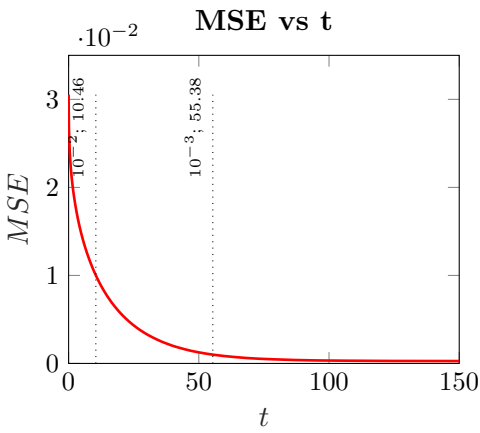
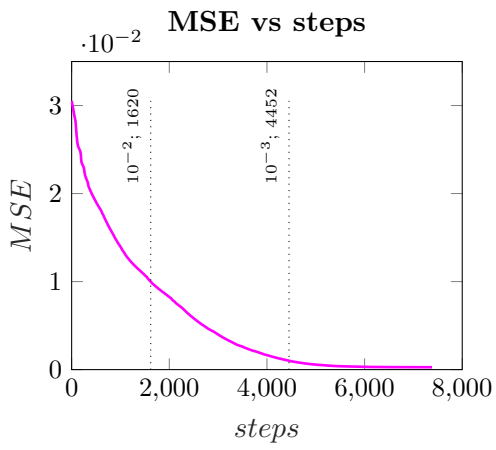
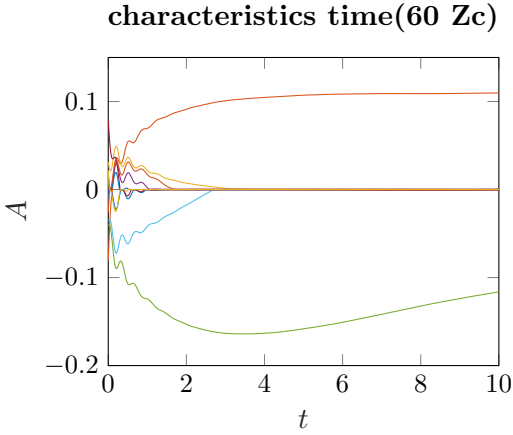
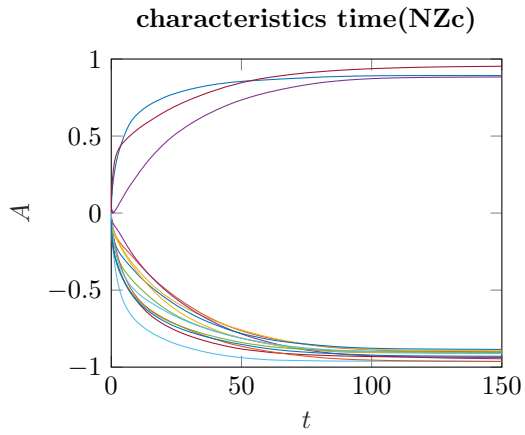
2.44 sim 4.7

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$8.8339E-05$	01 : 03 : 23	150.00	9592	4.7
A	Nz	η	m	n	σ	
1	15	15	110	512	0.0200	



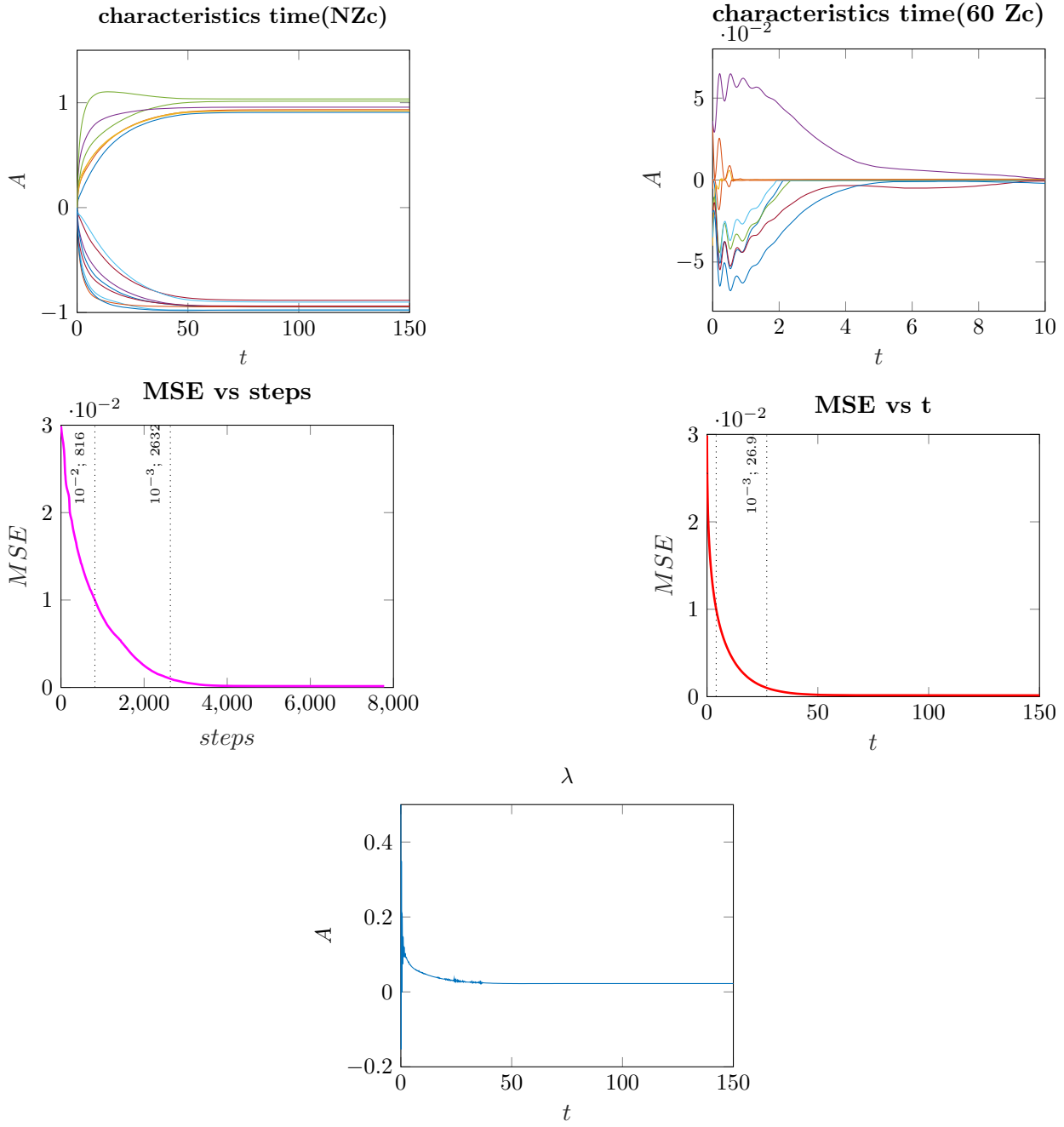
2.45 sim 4.8

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$2.7186E-04$	00 : 49 : 13	150.00	7381	4.8
<hr/>						
A	Nz	η	m	n	σ	
1	15	15	120	512	0.0200	



2.46 sim 4.9

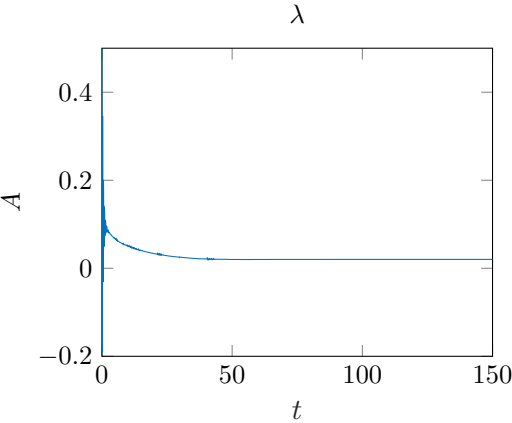
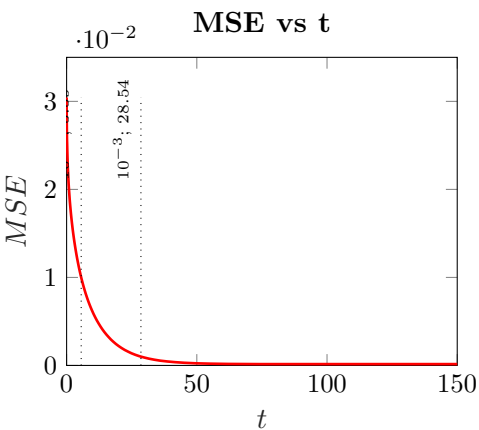
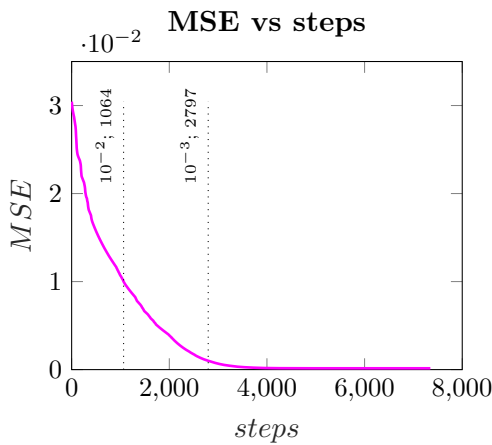
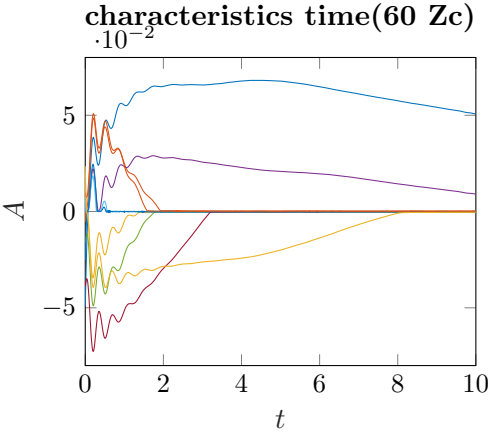
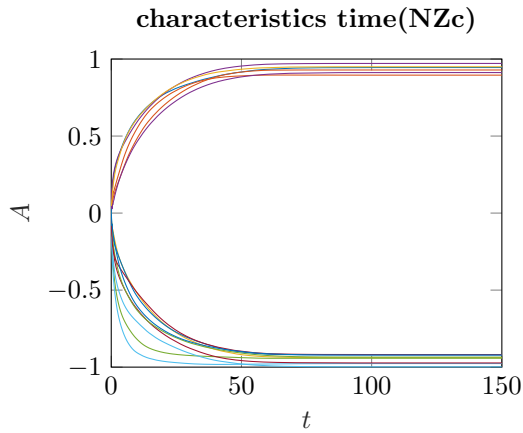
k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$1.5328E-04$	00 : 52 : 20	150.00	7777	4.9
<hr/>						
A	Nz	η	m	n	σ	
1	15	15	130	512	0.0200	



2.47 sim 4.10

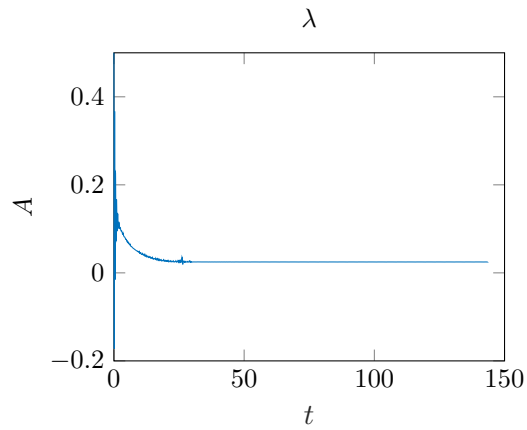
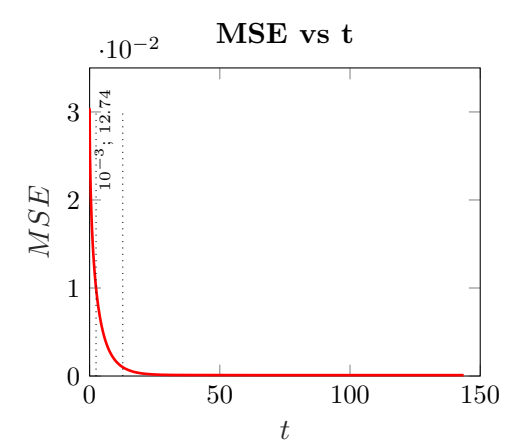
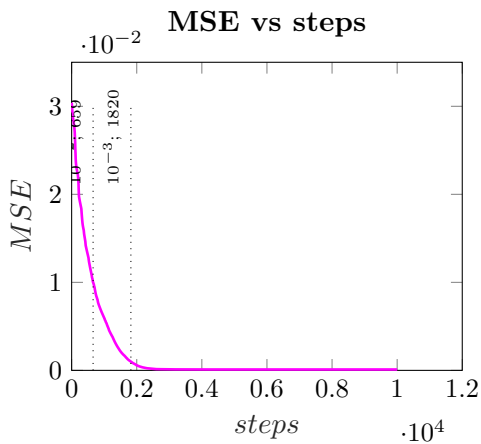
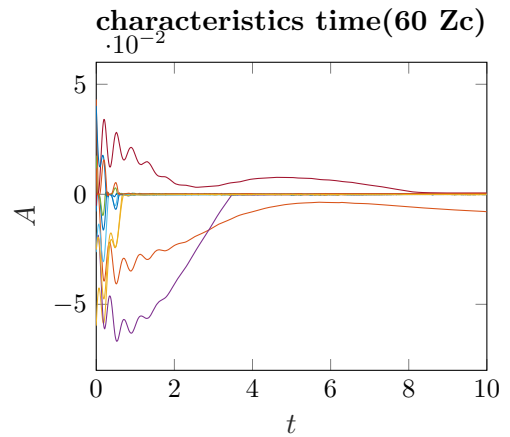
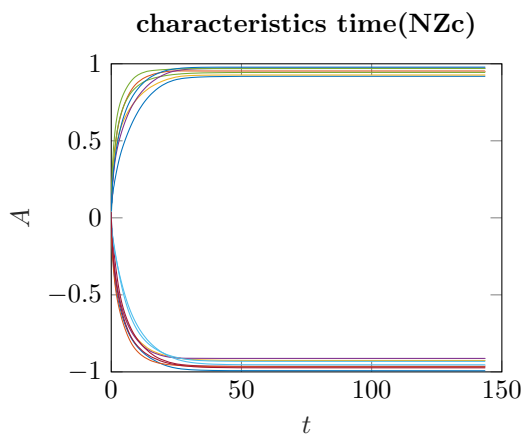
k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	1.4970E-04	00 : 49 : 27	150.00	7347	4.10

A	Nz	η	m	n	σ
1	15	15	140	512	0.0200



2.48 sim 4.11

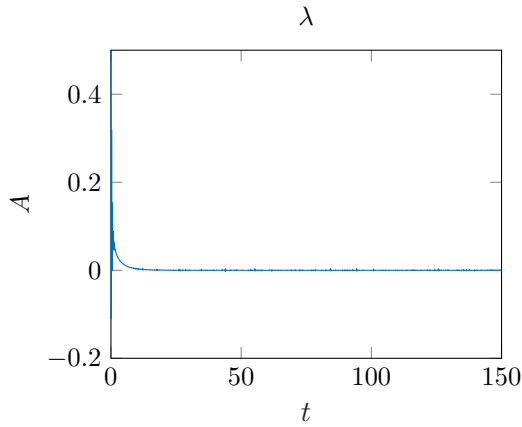
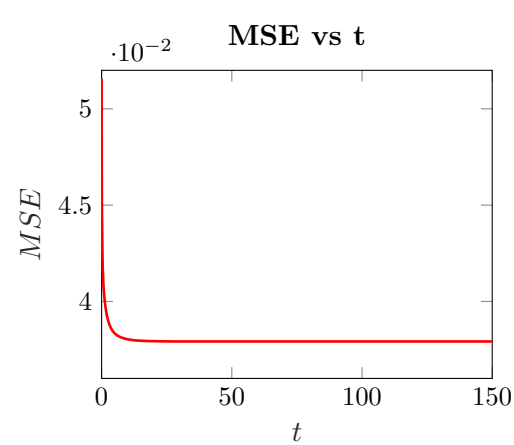
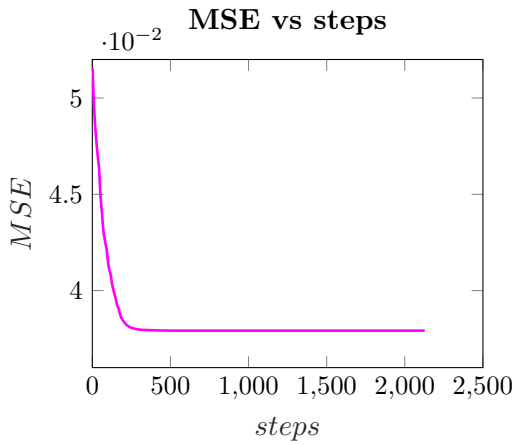
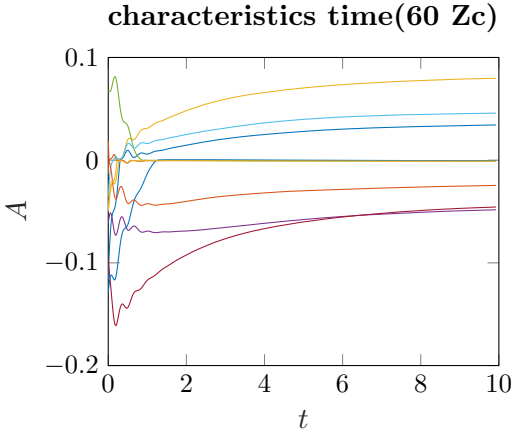
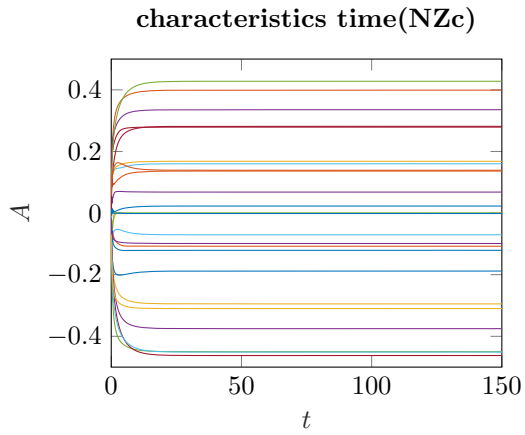
k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	1.0286E-04	01 : 07 : 39	143.63	10001	4.11
A	Nz	η	m	n	σ	
1	15	15	150	512	0.0200	



2.49 sim 4.49

k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	3.7924E-02	00 : 11 : 52	150.00	2128	4.49

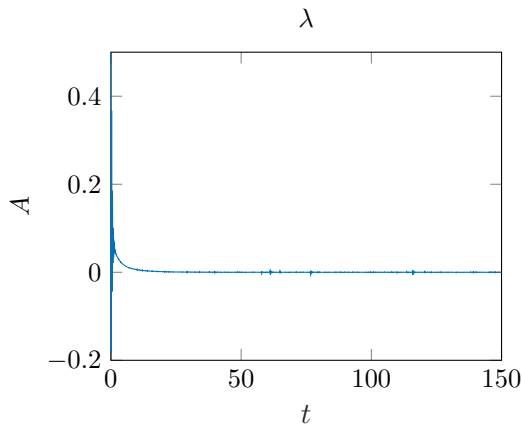
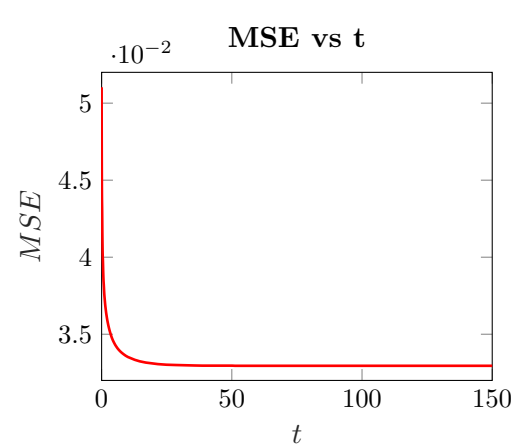
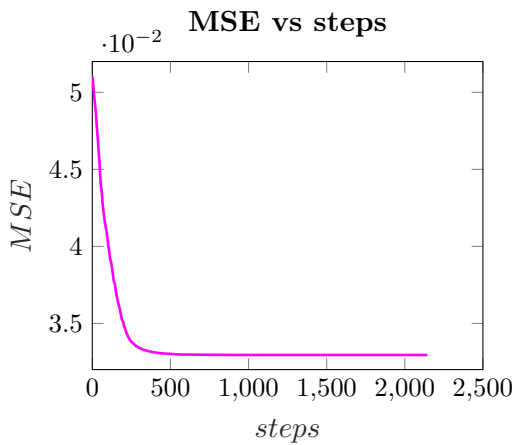
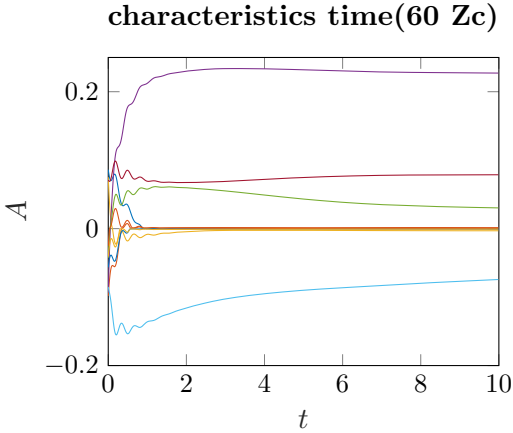
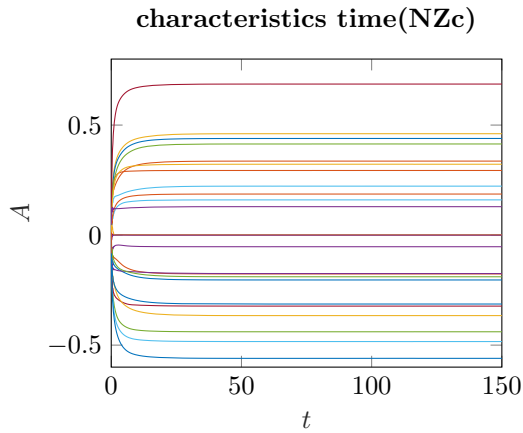
A	Nz	η	m	n	σ
1	25	25	80	512	0.0020



2.50 sim 4.50

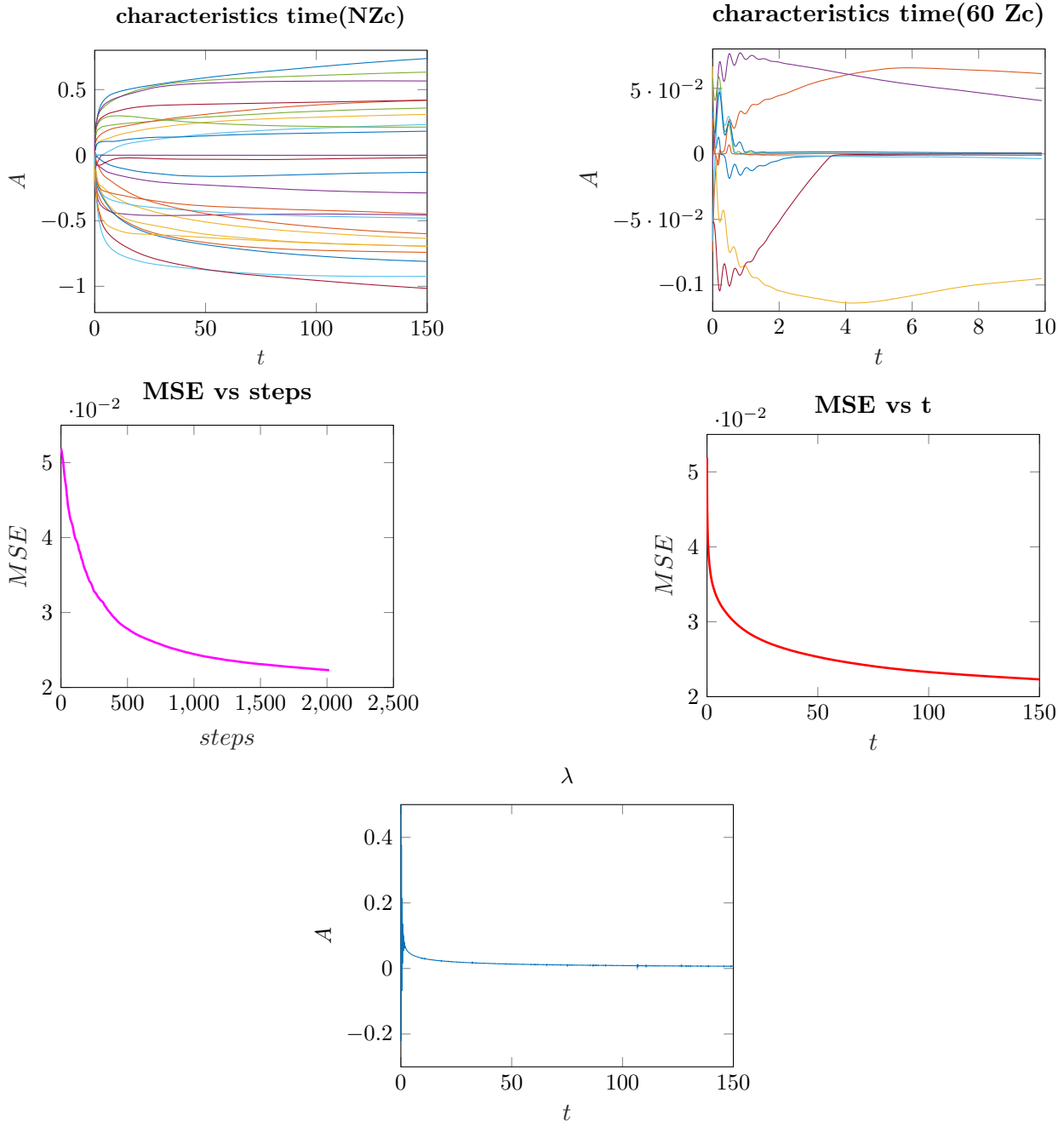
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$3.2953E-02$	00 : 11 : 53	150.00	2145	4.50

A	Nz	η	m	n	σ
1	25	25	90	512	0.0020



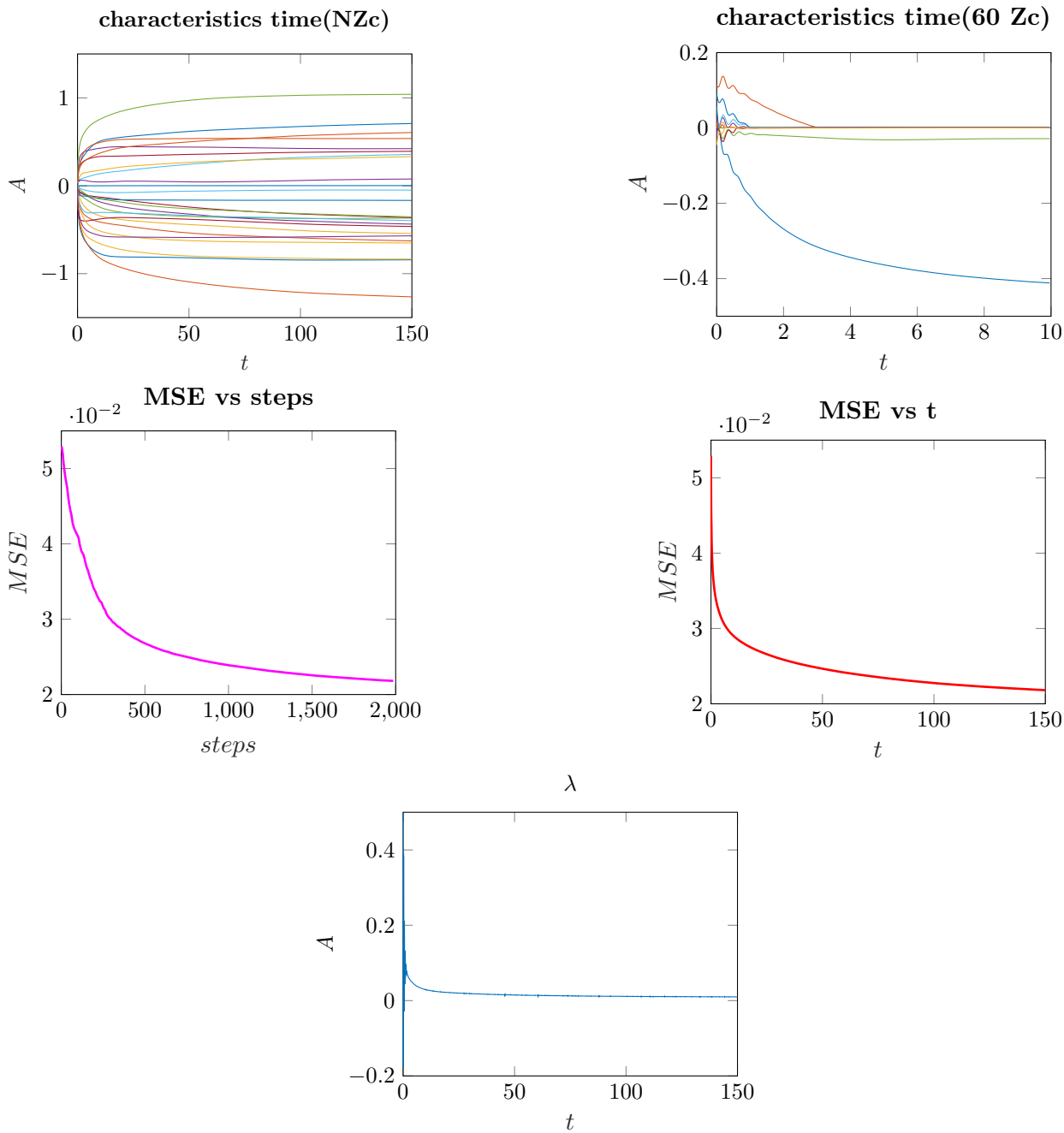
2.51 sim 4.43

k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$2.2311E-02$	00 : 11 : 14	150.00	2017	4.43
A	Nz	η	m	n	σ	
1	25	25	100	512	0.0020	



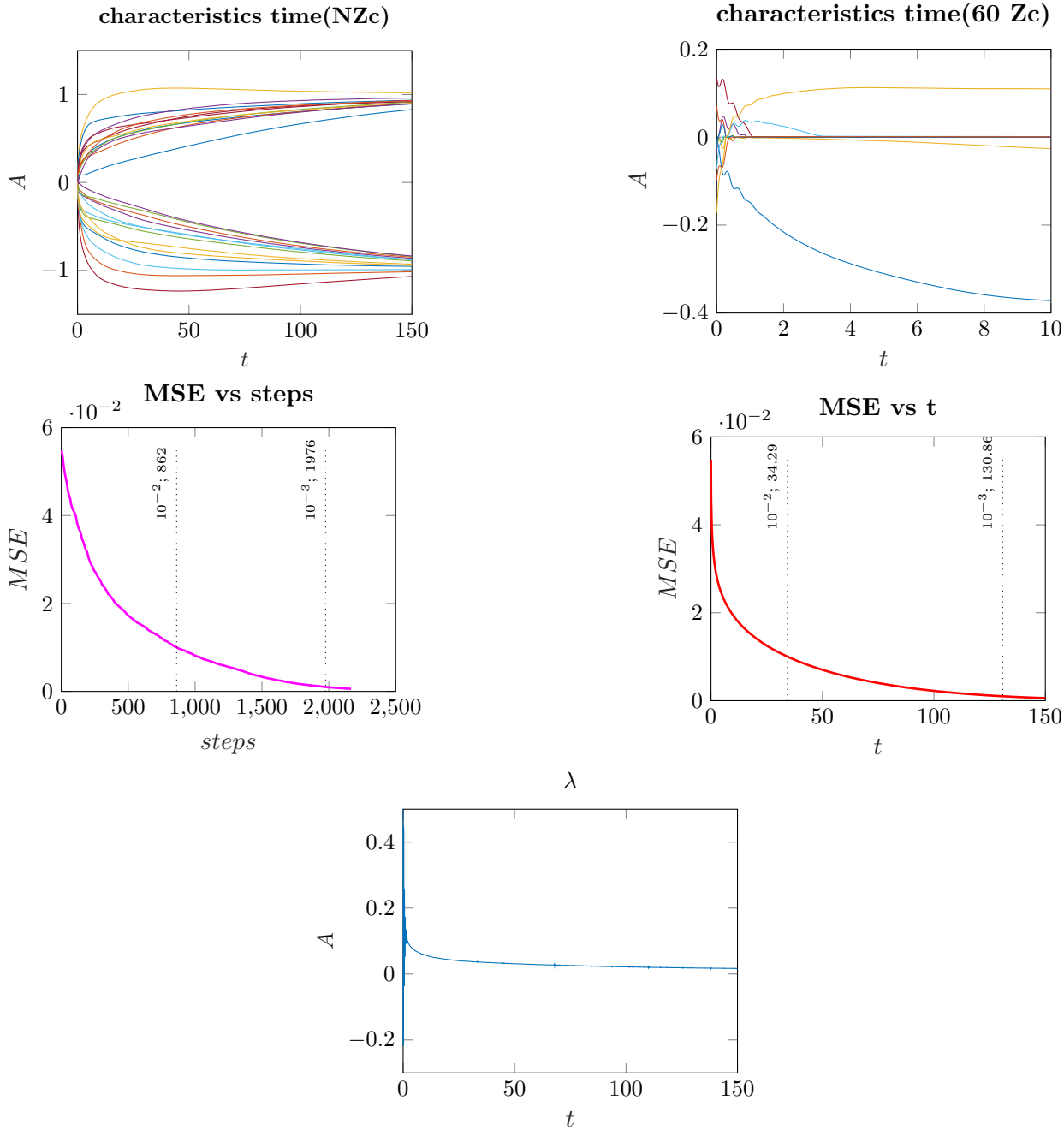
2.52 sim 4.44

k	ϕ	MSE		ExTime		t_{max}	steps	id
1000	U	2.1806E − 02		00 : 11 : 10		150.00	1985	4.44
		A	Nz	η	m	n	σ	
		1	25	25	110	512	0.0020	



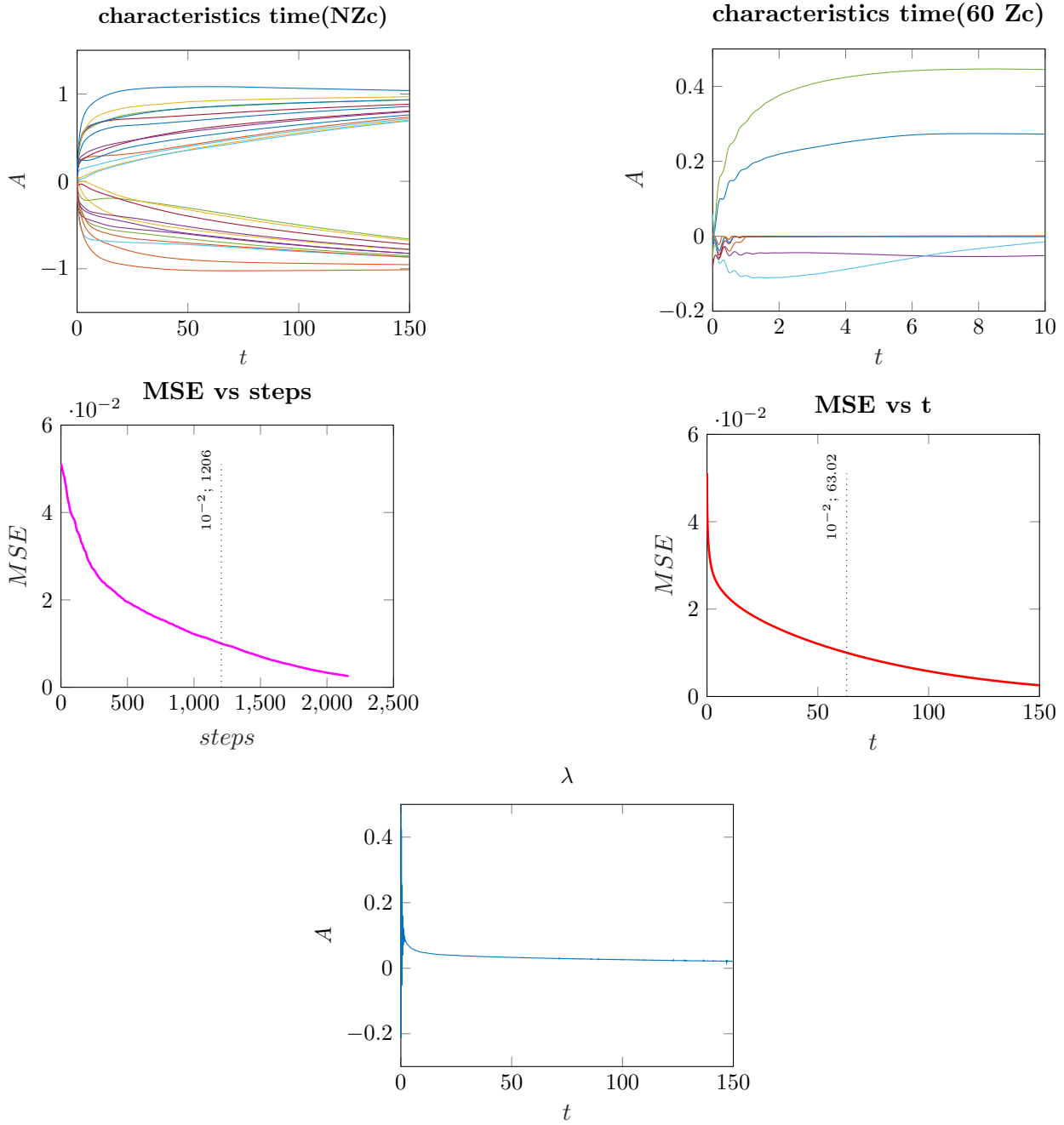
2.53 sim 4.45

k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	5.8534E-04	00 : 12 : 10	150.00	2166	4.45
A	Nz	η	m	n	σ	
1	25	25	120	512	0.0020	



2.54 sim 4.46

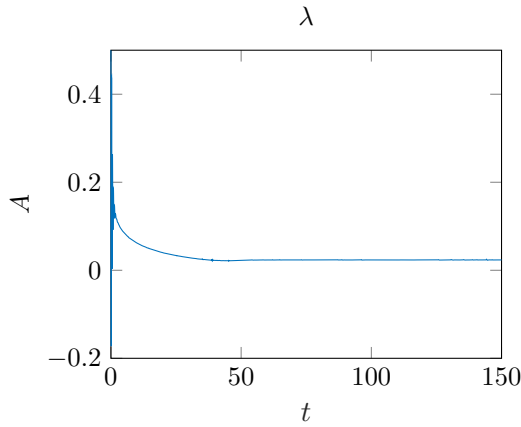
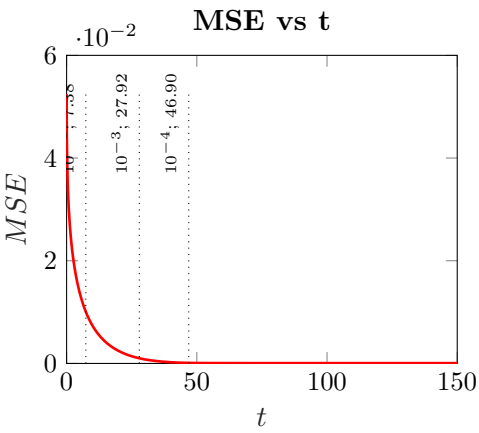
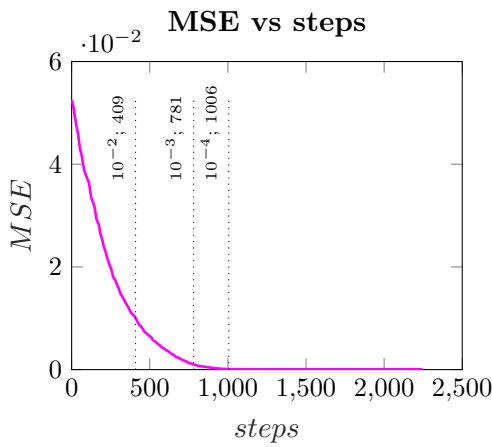
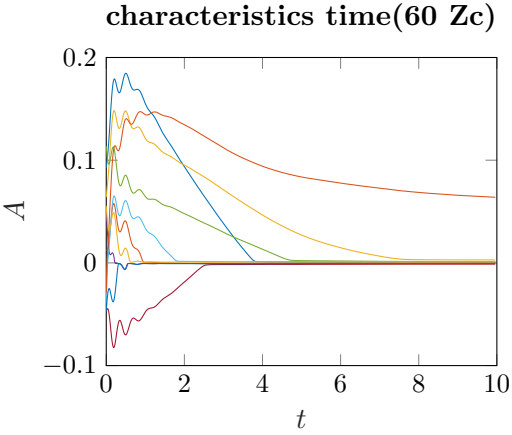
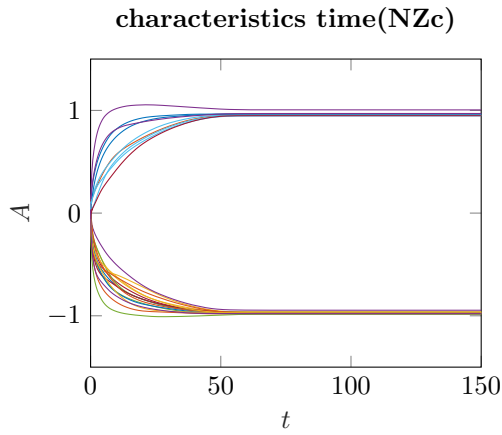
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$2.5598E-03$	00 : 12 : 12	150.00	2162	4.46
<hr/>						
A	Nz	η	m	n	σ	
1	25	25	130	512	0.0020	



2.55 sim 4.47

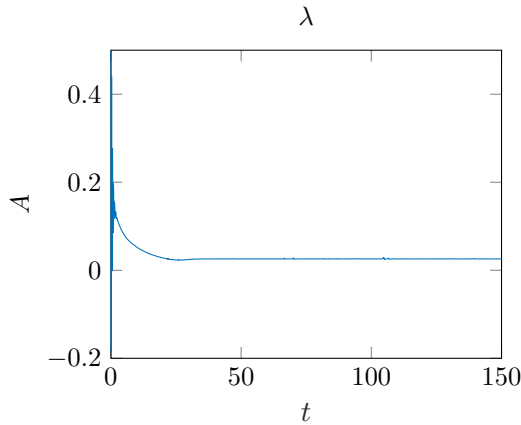
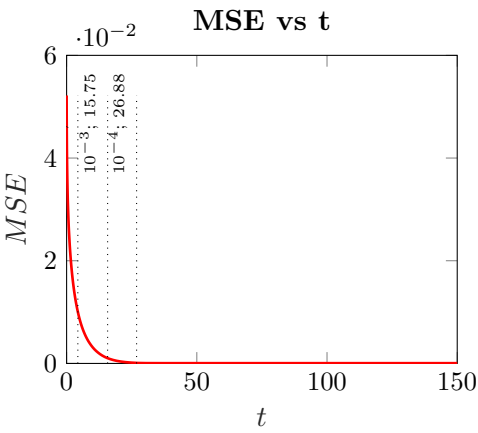
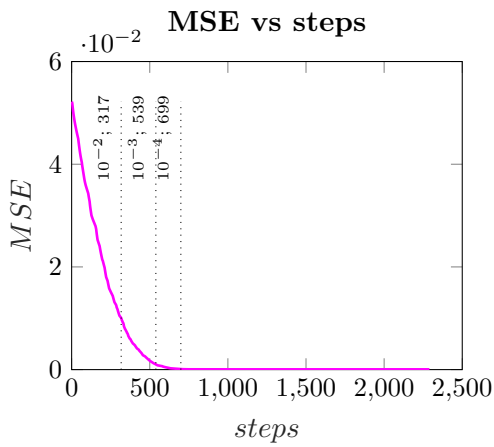
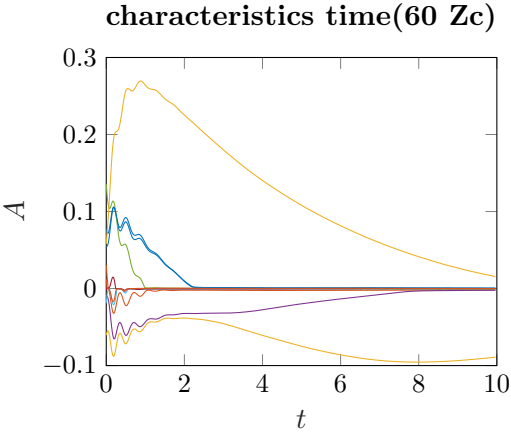
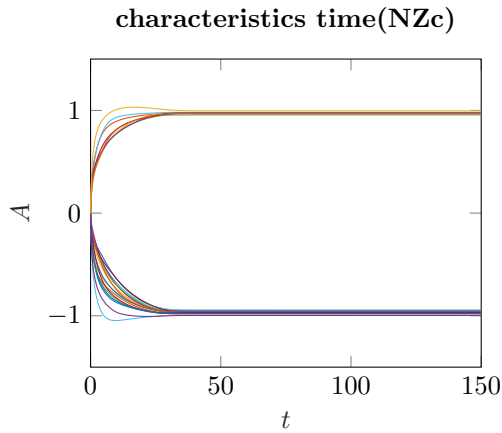
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	6.2884E-05	00 : 12 : 27	150.00	2246	4.47

A	Nz	η	m	n	σ
1	25	25	140	512	0.0020



2.56 sim 4.48

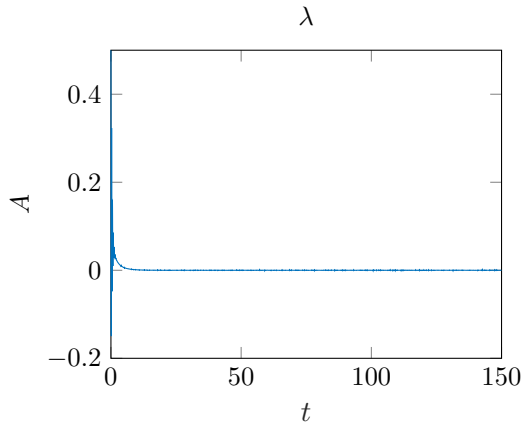
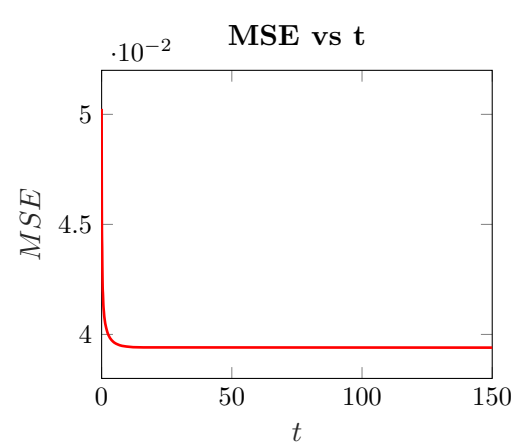
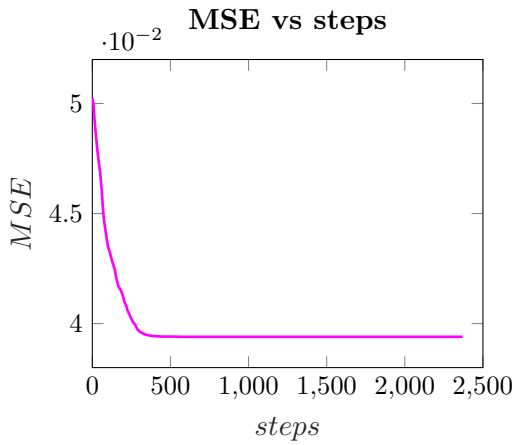
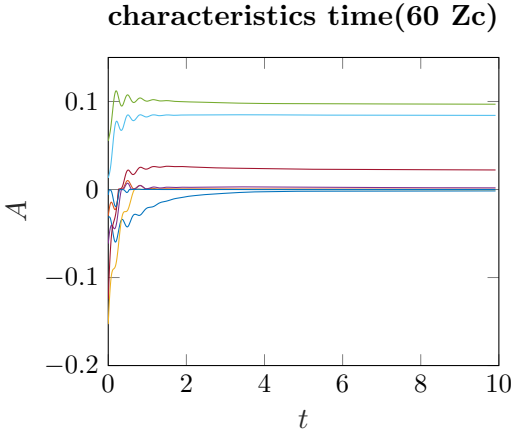
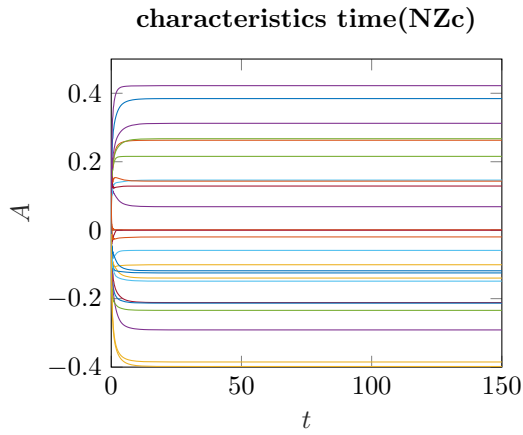
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	5.3741E-05	00 : 12 : 53	150.00	2290	4.48
A	Nz	η	m	n	σ	
1	25	25	150	512	0.0020	



2.57 sim 4.37

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$3.9403E-02$	00 : 12 : 47	150.00	2370	4.37

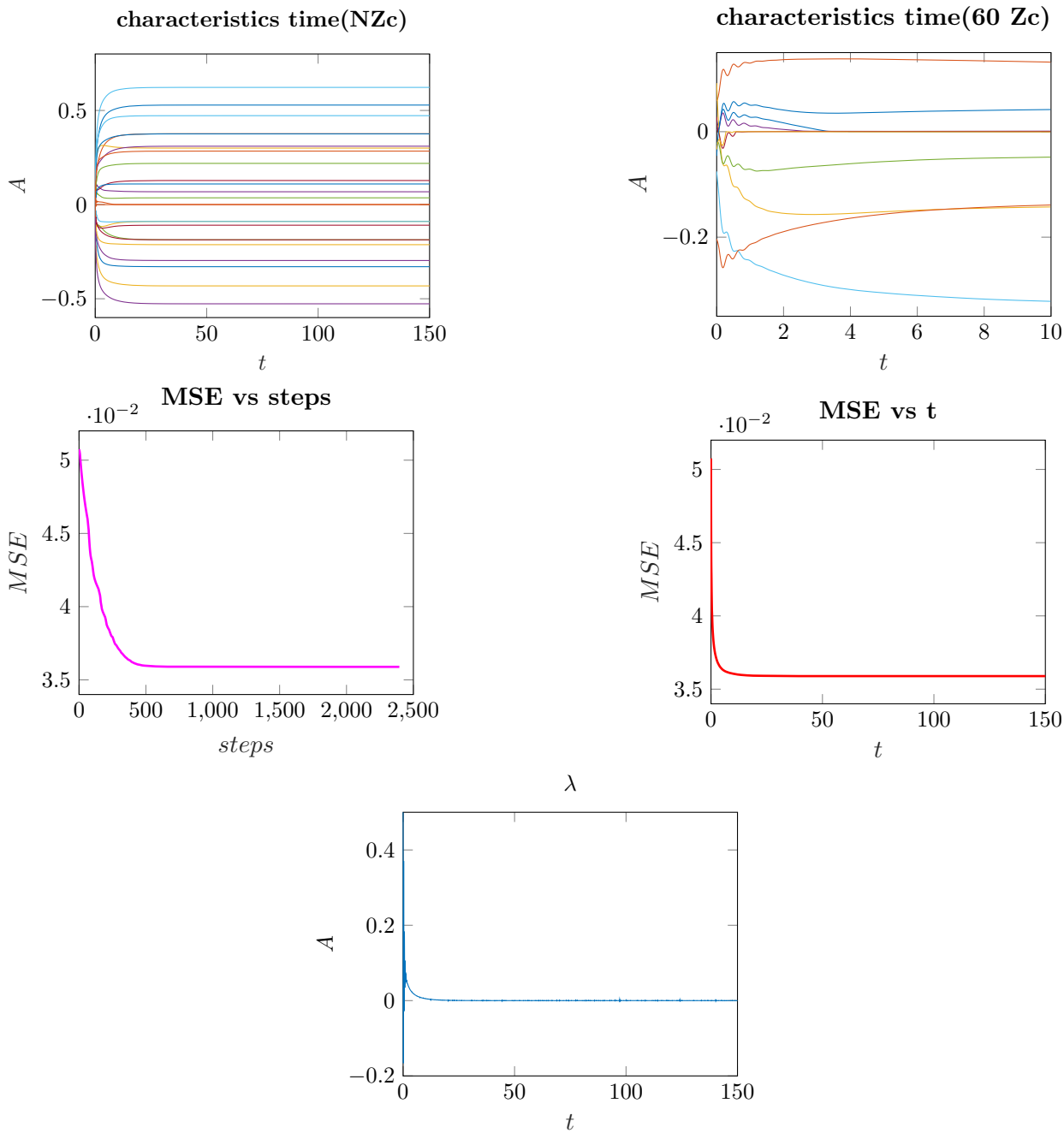
A	Nz	η	m	n	σ
1	25	25	80	512	0.0020



2.58 sim 4.38

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$3.5893E-02$	00 : 13 : 12	150.00	2395	4.38

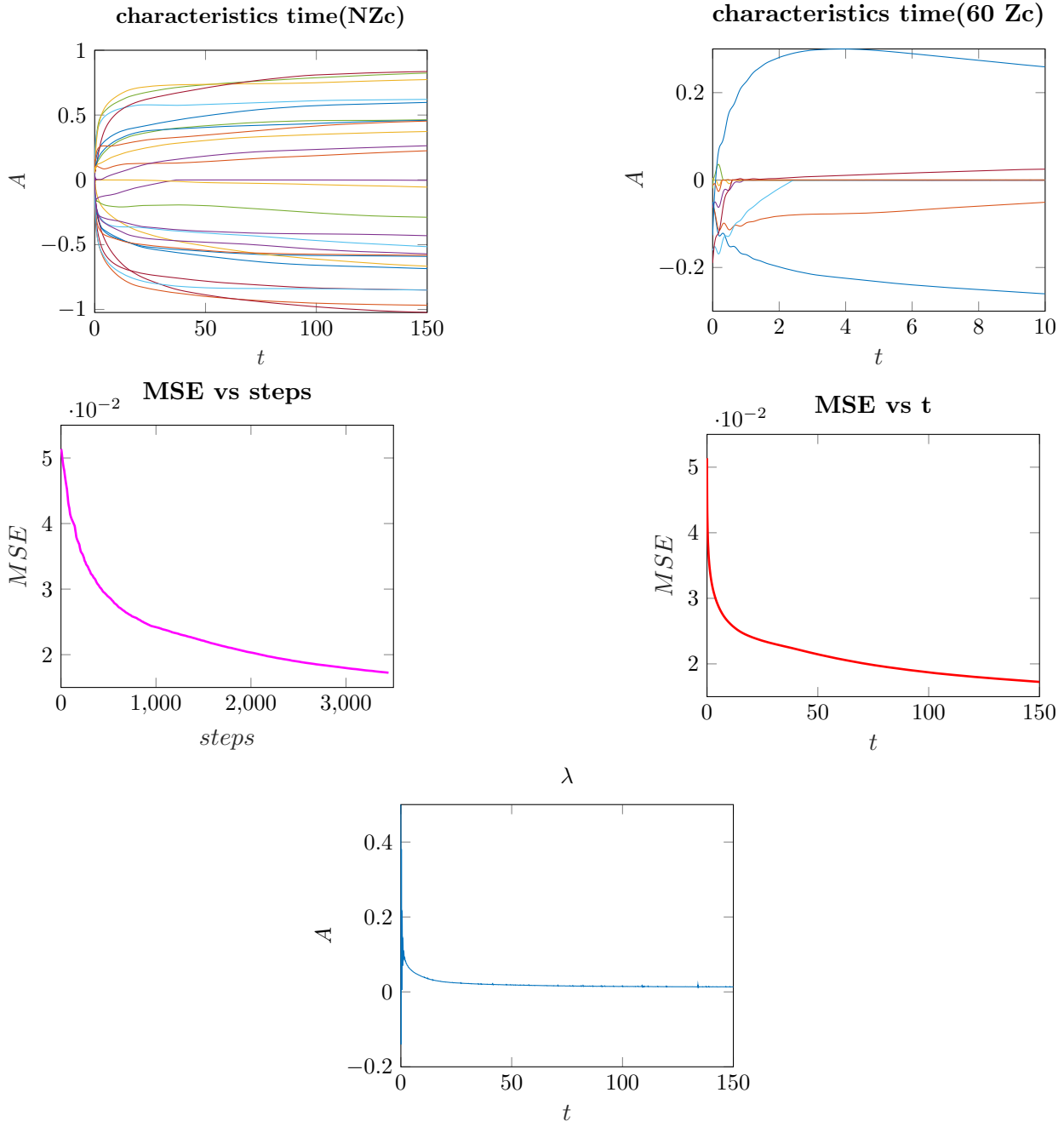
A	Nz	η	m	n	σ
1	25	25	90	512	0.0020



2.59 sim 4.31

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	1.7250E-02	00 : 18 : 37	150.00	3448	4.31

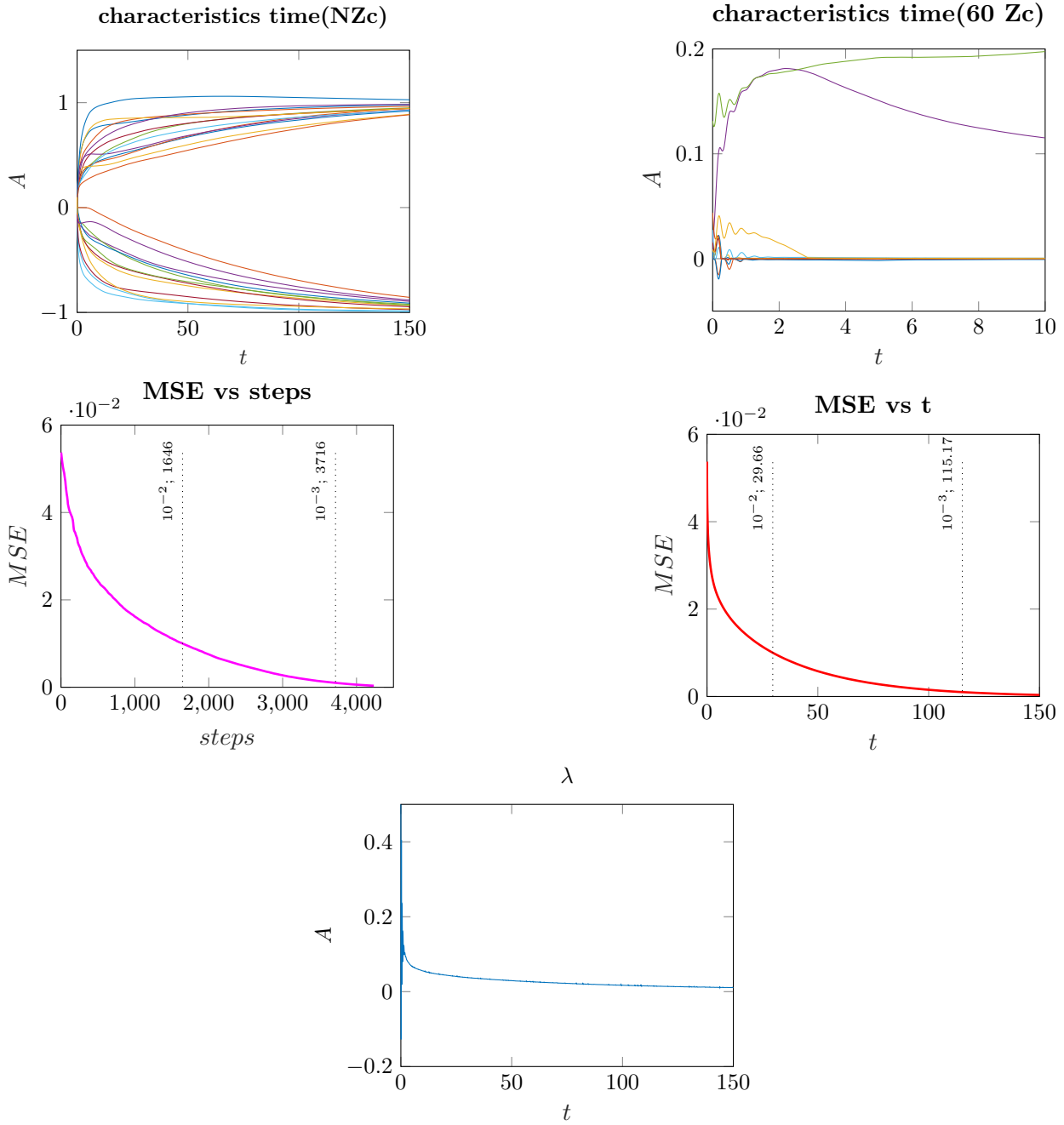
A	Nz	η	m	n	σ
1	25	25	100	512	0.0020



2.60 sim 4.32

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	3.5109E-04	00 : 22 : 59	150.00	4234	4.32

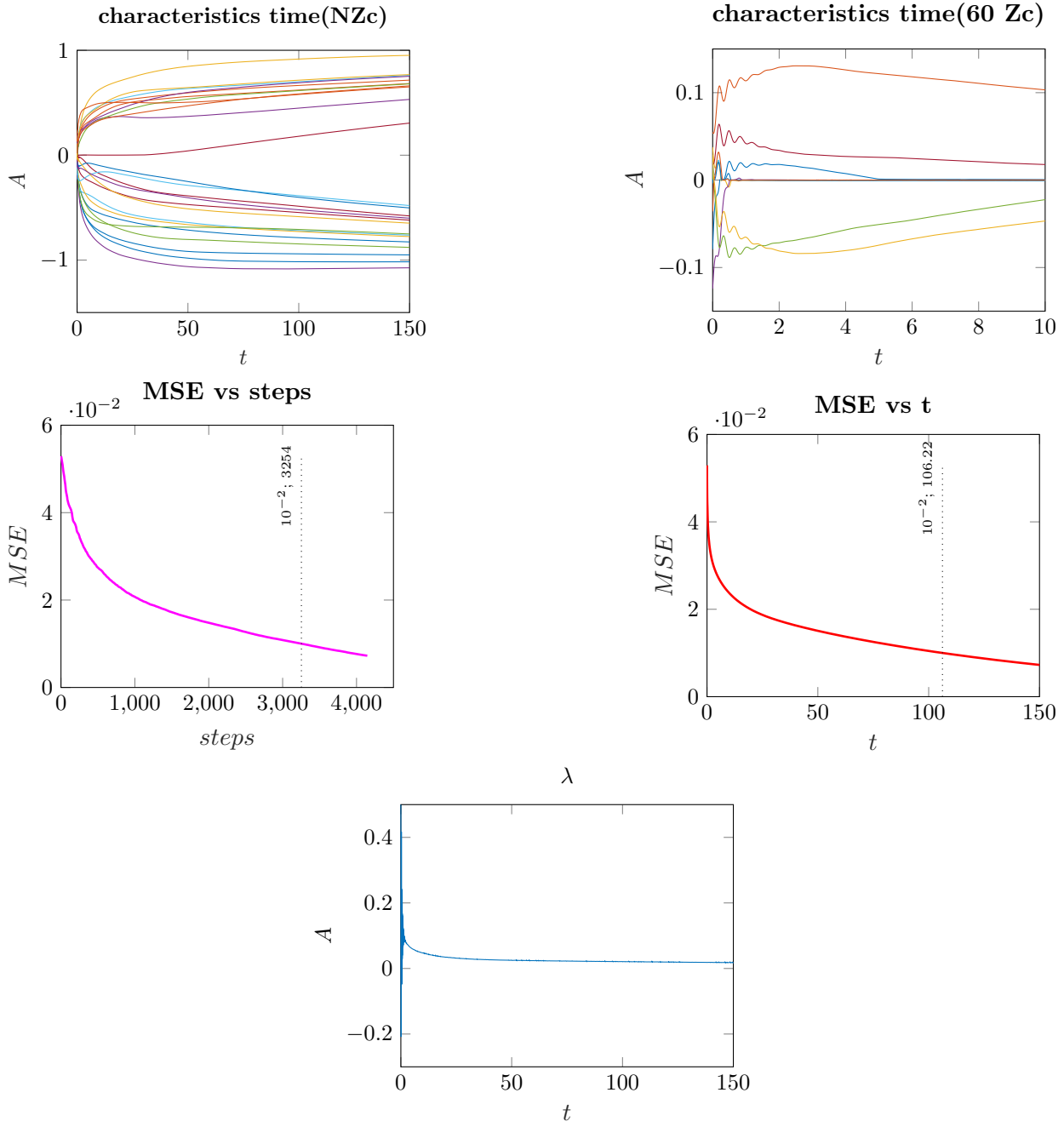
A	Nz	η	m	n	σ
1	25	25	110	512	0.0020



2.61 sim 4.33

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	7.2696E-03	00 : 22 : 49	150.00	4146	4.33

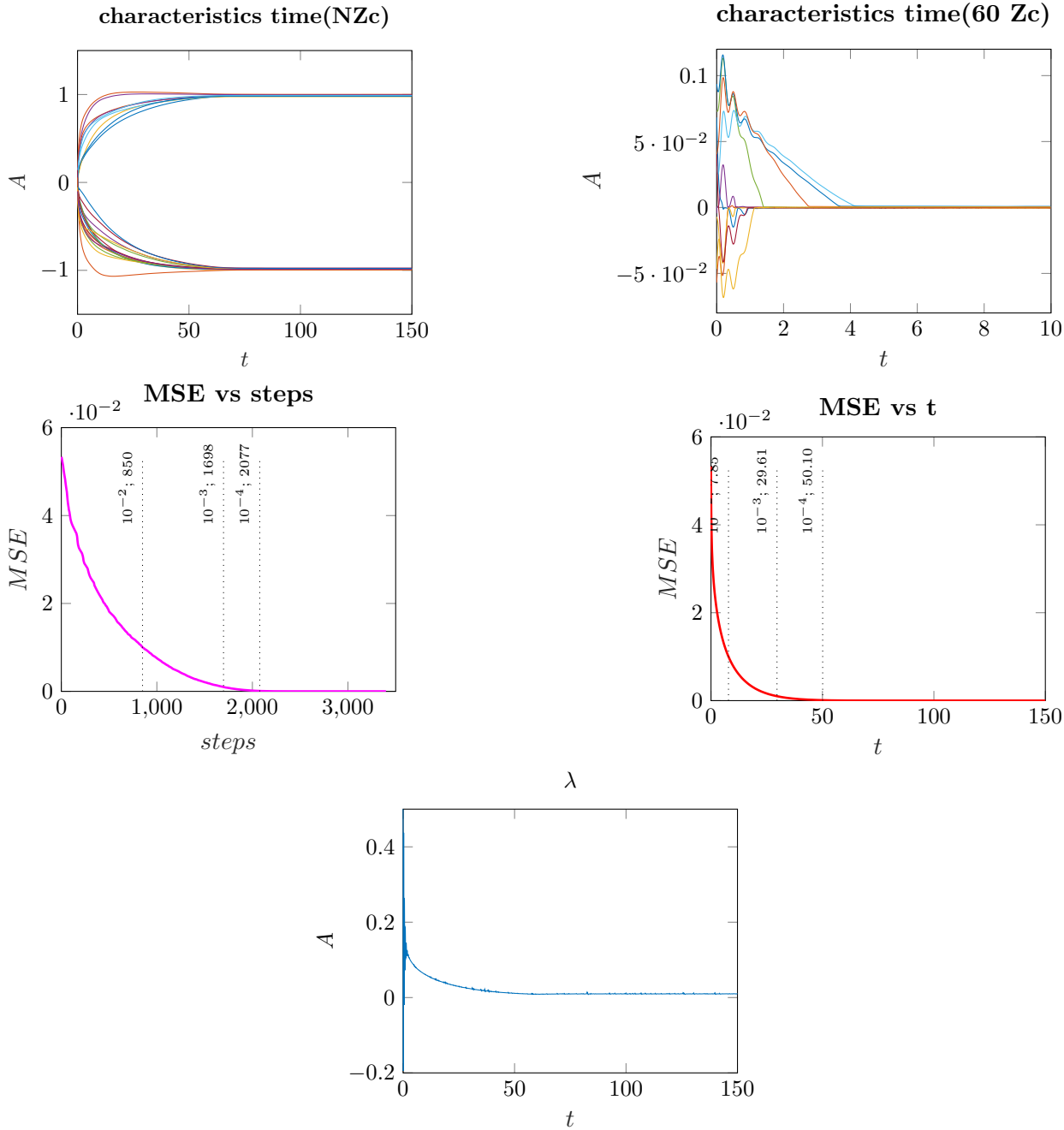
A	Nz	η	m	n	σ
1	25	25	120	512	0.0020



2.62 sim 4.34

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	1.2143E-05	00 : 18 : 17	150.00	3398	4.34

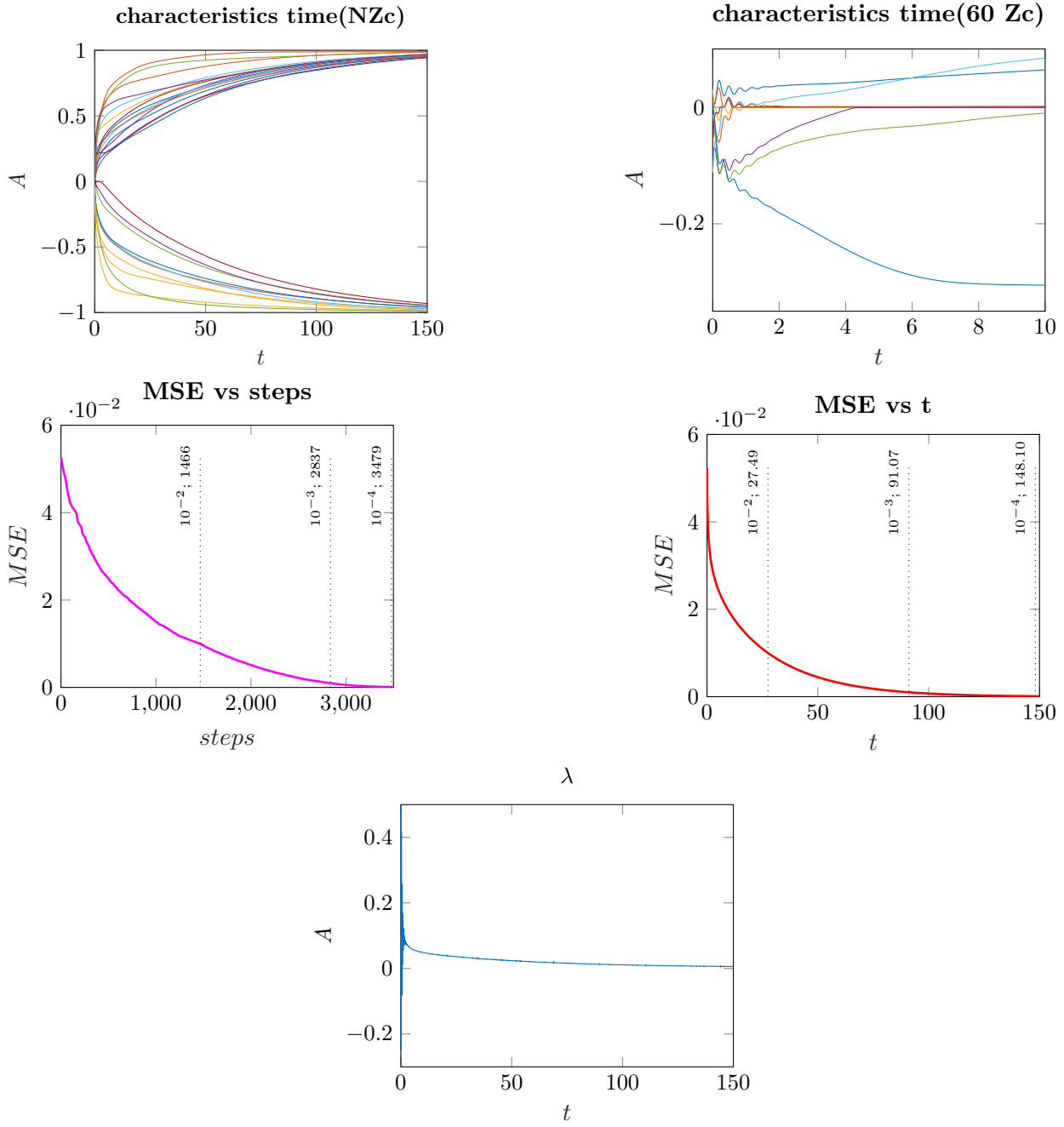
A	Nz	η	m	n	σ
1	25	25	130	512	0.0020



2.63 sim 4.35

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	9.2004E-05	00 : 18 : 56	150.00	3499	4.35

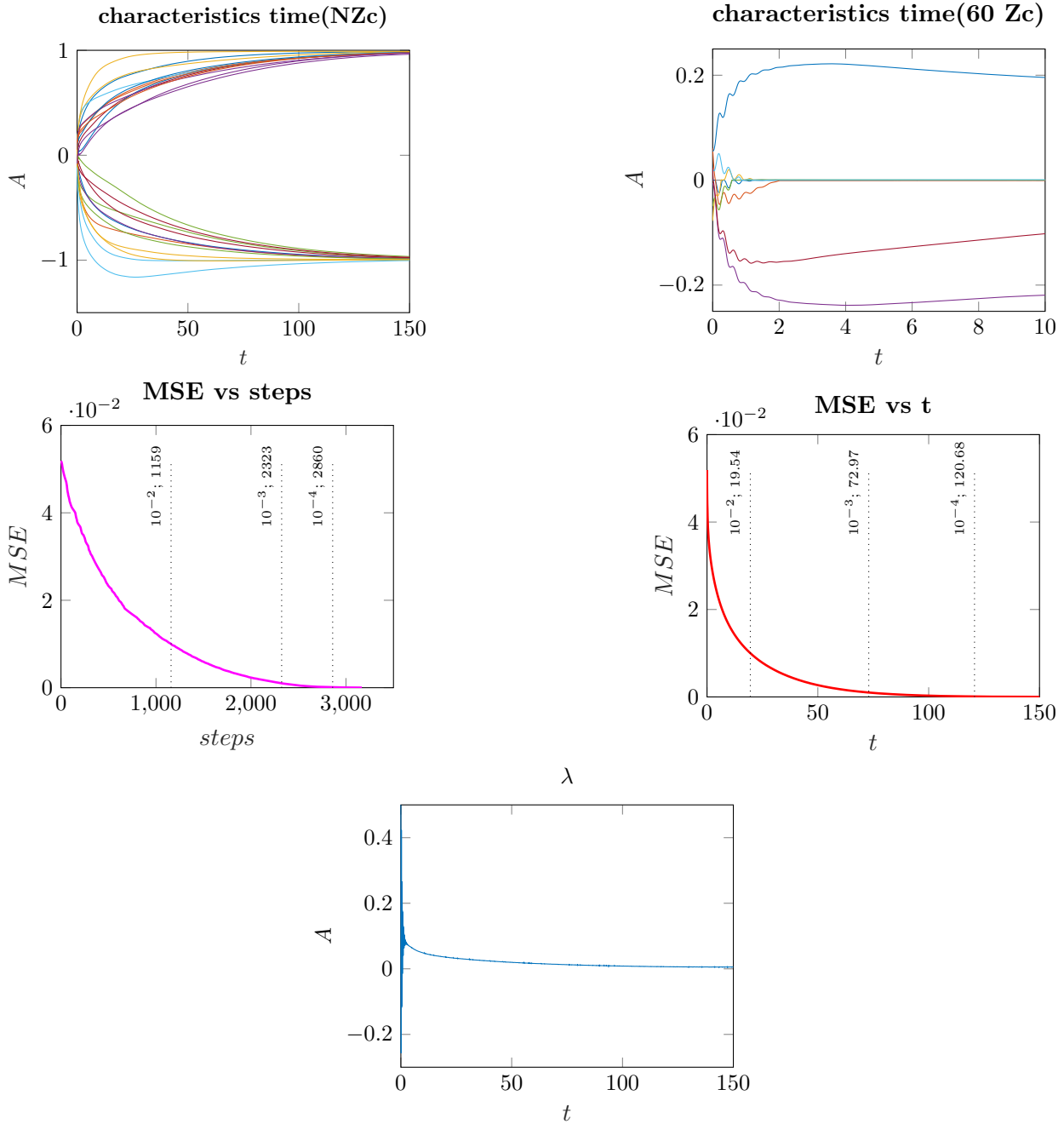
A	Nz	η	m	n	σ
1	25	25	140	512	0.0020



2.64 sim 4.36

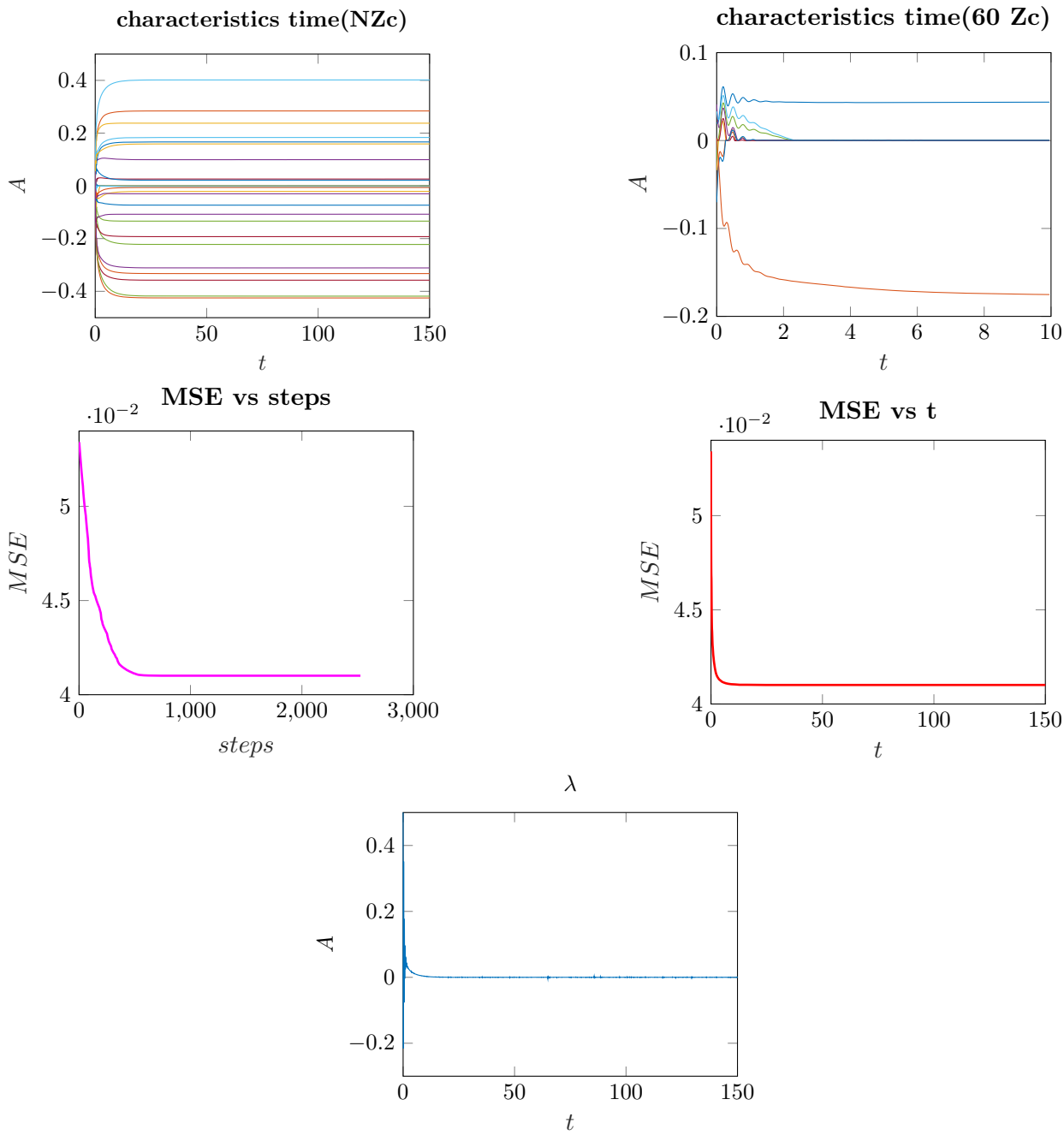
k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	2.2523E-05	00 : 17 : 26	150.00	3167	4.36

A	Nz	η	m	n	σ
1	25	25	150	512	0.0020



2.65 sim 4.24

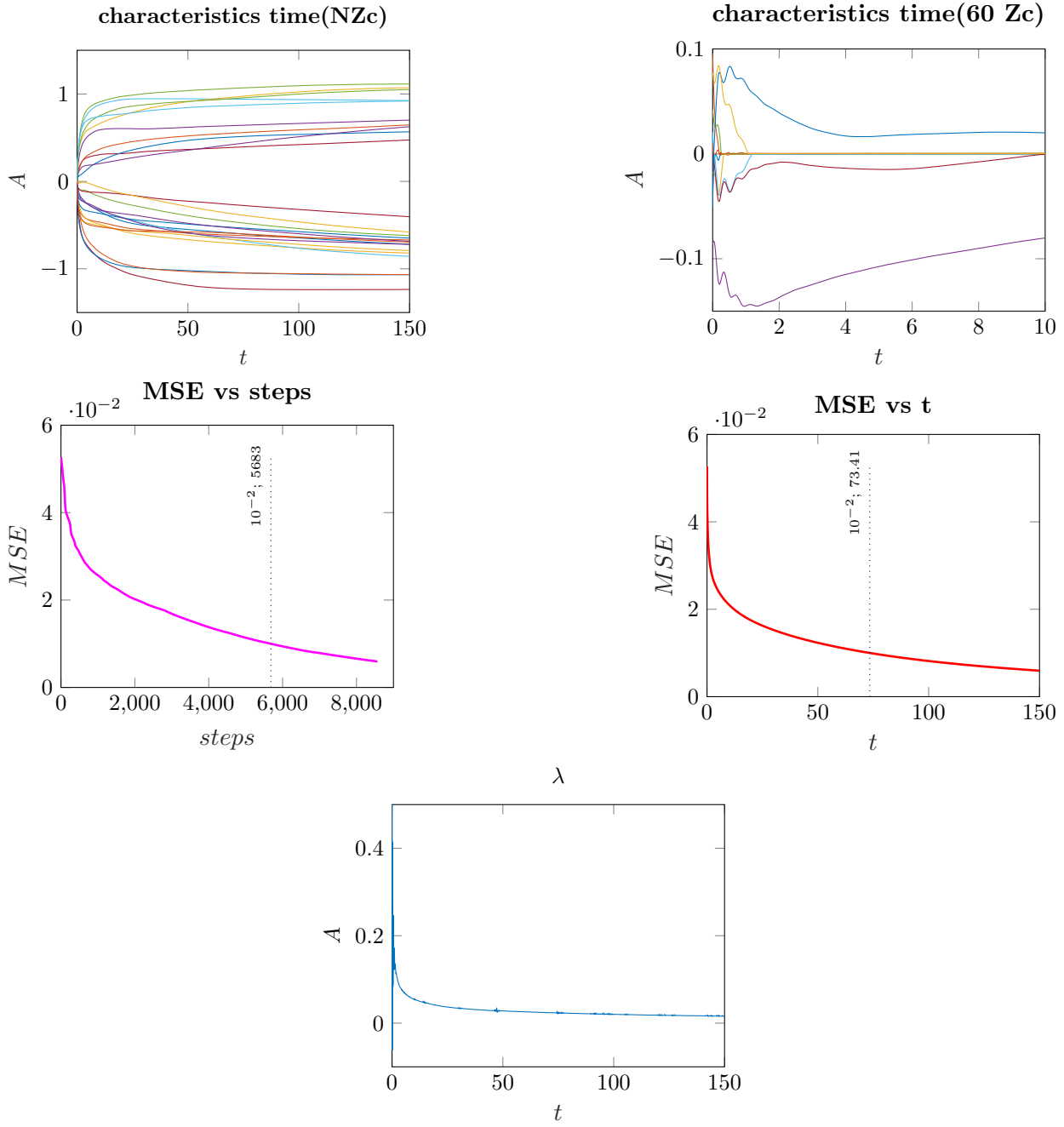
k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	4.1010E-02	00 : 13 : 51	150.00	2525	4.24
A	Nz	η	m	n	σ	
1	25	25	80	512	0.0020	



2.66 sim 4.25

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	5.9391E-03	00 : 44 : 35	150.00	8567	4.25

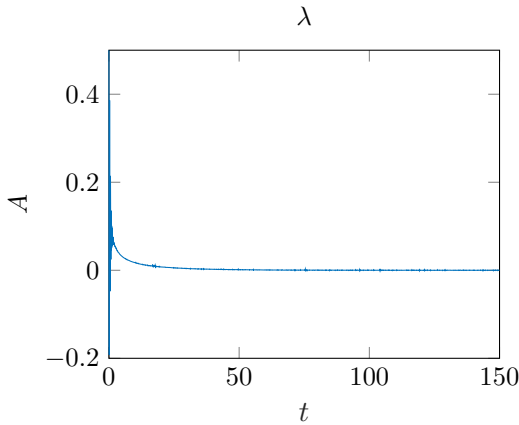
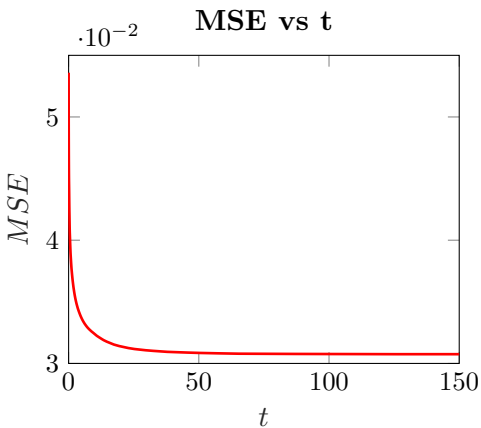
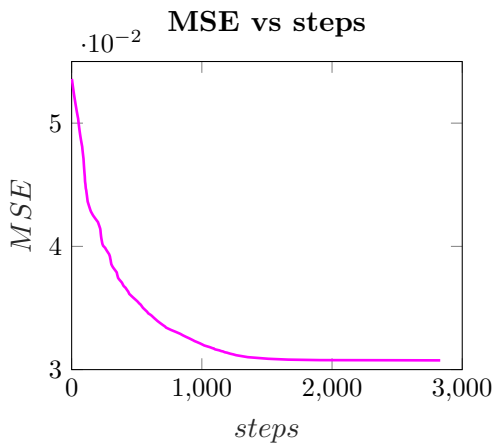
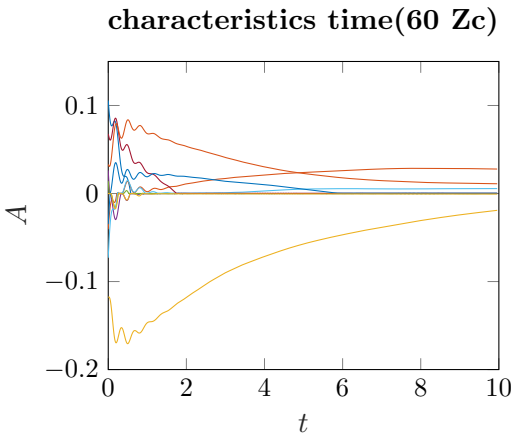
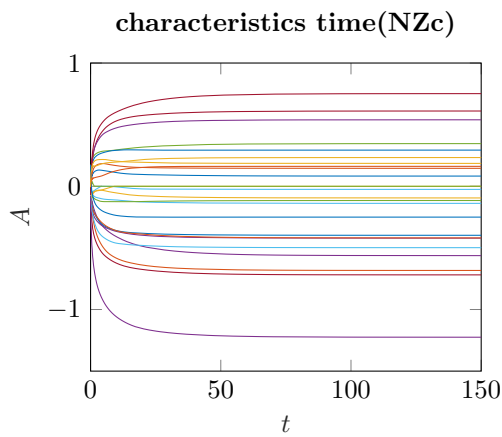
A	Nz	η	m	n	σ
1	25	25	90	512	0.0020



2.67 sim 4.18

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$3.0753E-02$	00 : 15 : 15	150.00	2831	4.18

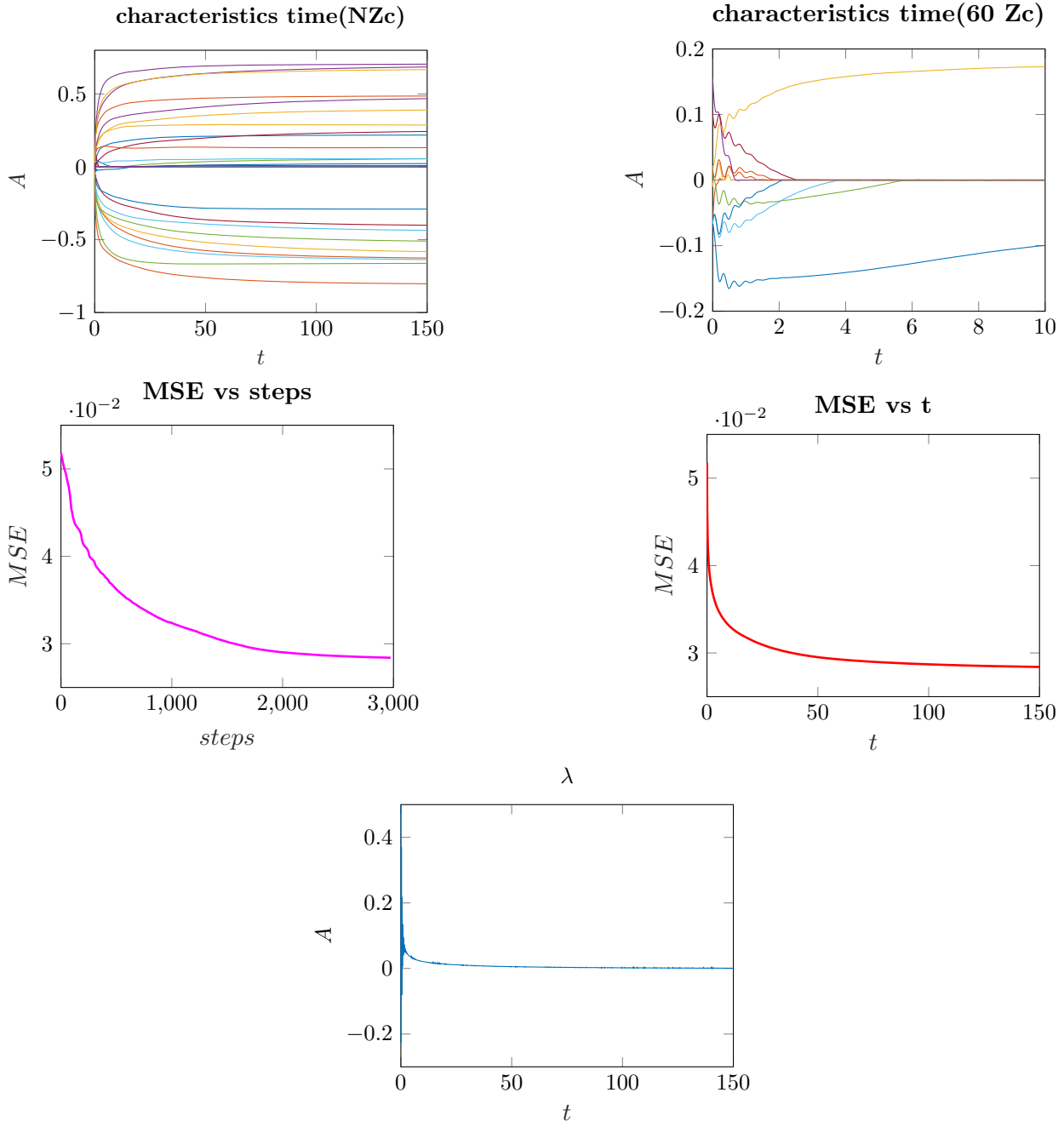
A	Nz	η	m	n	σ
1	25	25	100	512	0.0020



2.68 sim 4.19

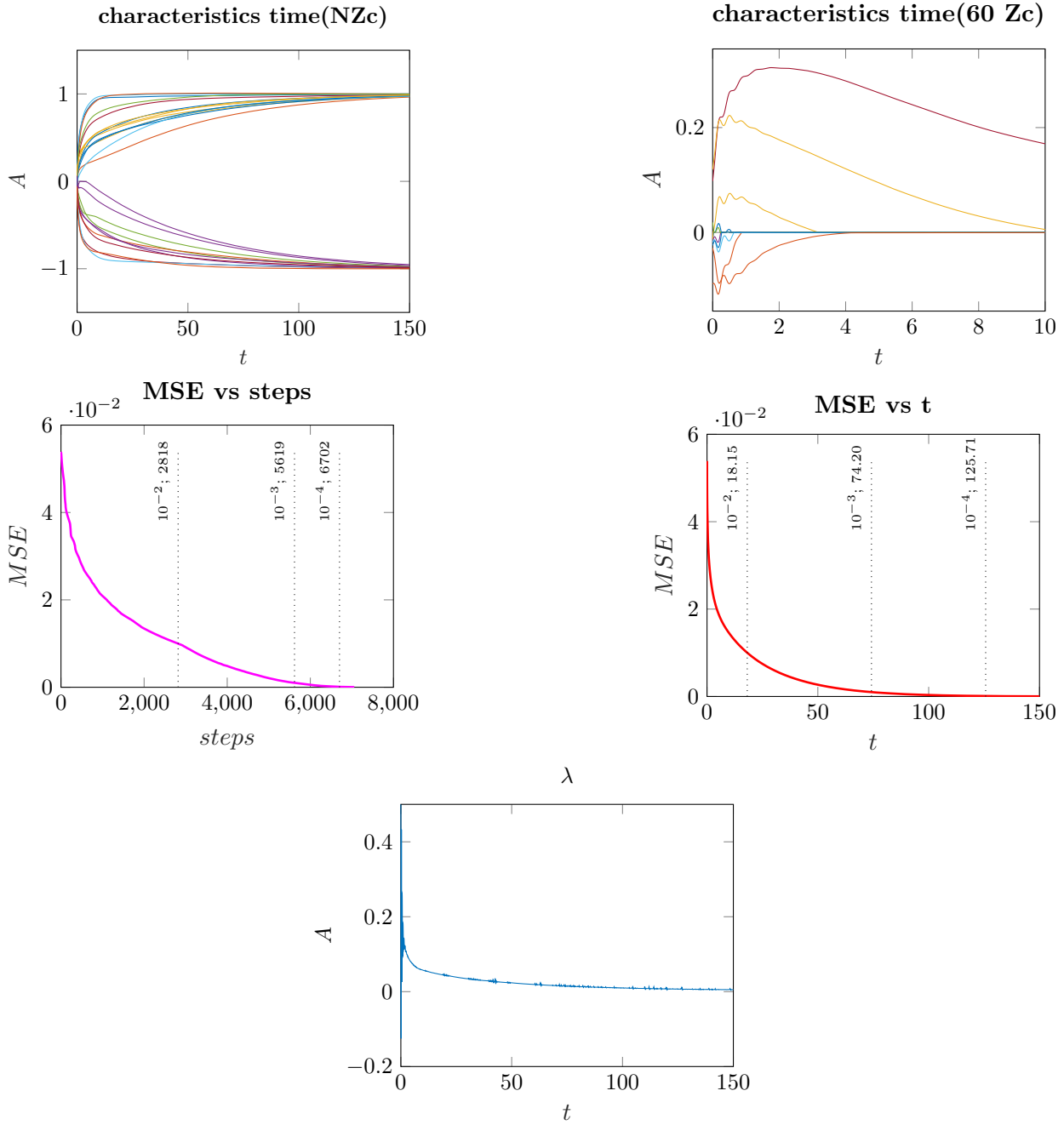
k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$2.8401E-02$	00 : 16 : 21	150.00	2974	4.19

A	Nz	η	m	n	σ
1	25	25	110	512	0.0020



2.69 sim 4.20

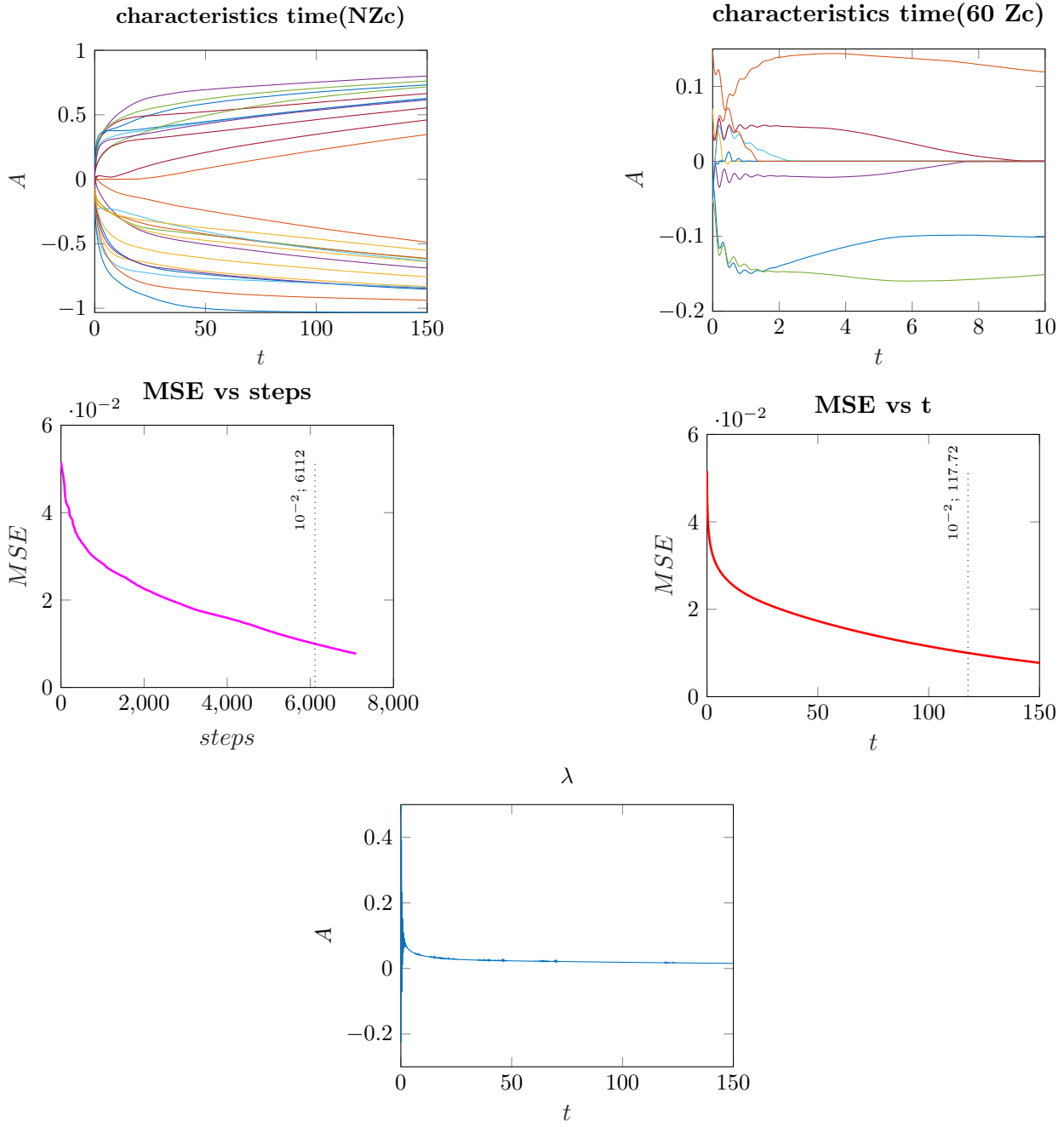
k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$2.7536E-05$	00 : 37 : 23	150.00	7057	4.20
A	Nz	η	m	n	σ	
1	25	25	120	512	0.0020	



2.70 sim 4.21

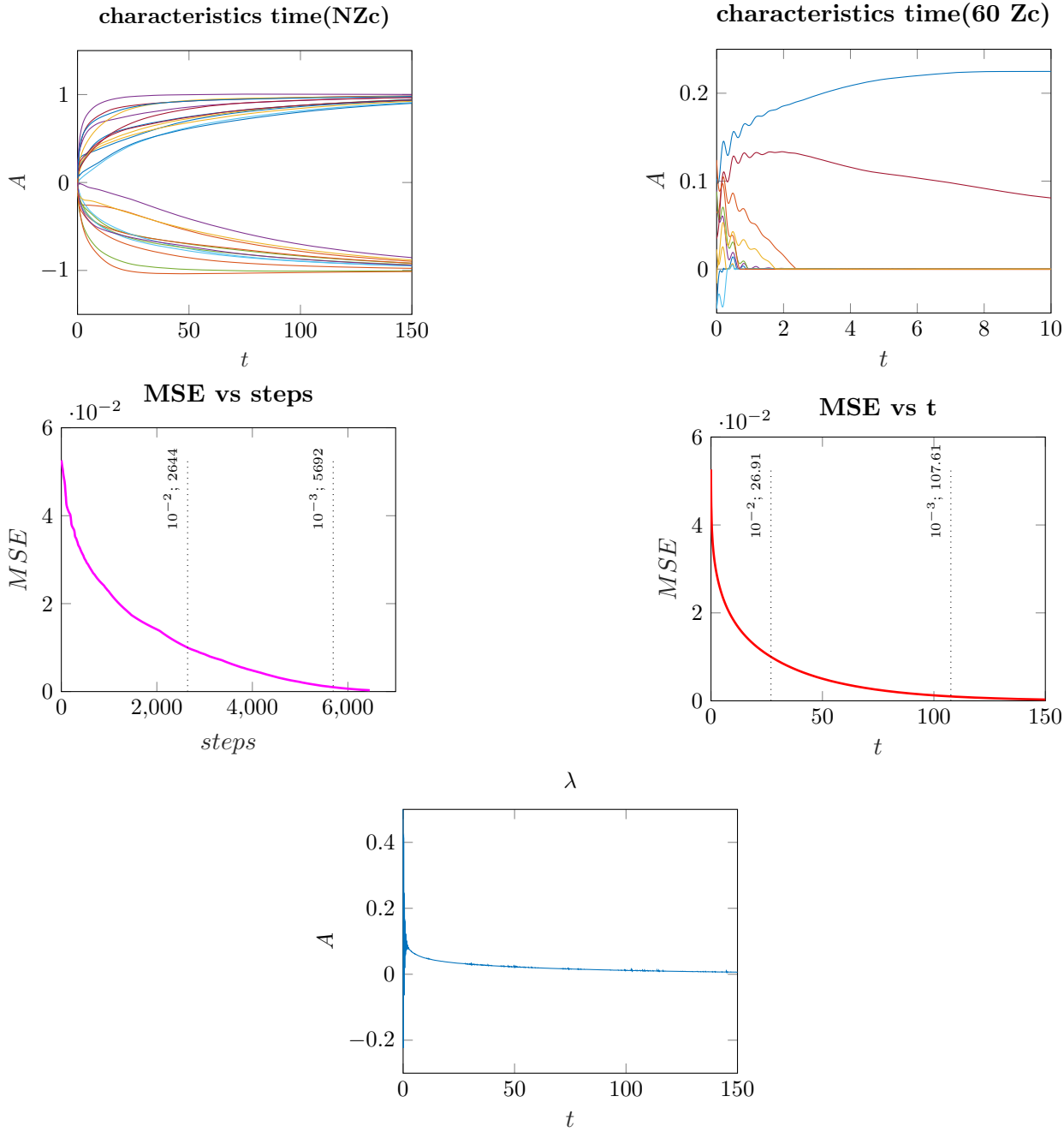
k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$7.7386E-03$	00 : 37 : 32	150.00	7102	4.21

A	Nz	η	m	n	σ
1	25	25	130	512	0.0020



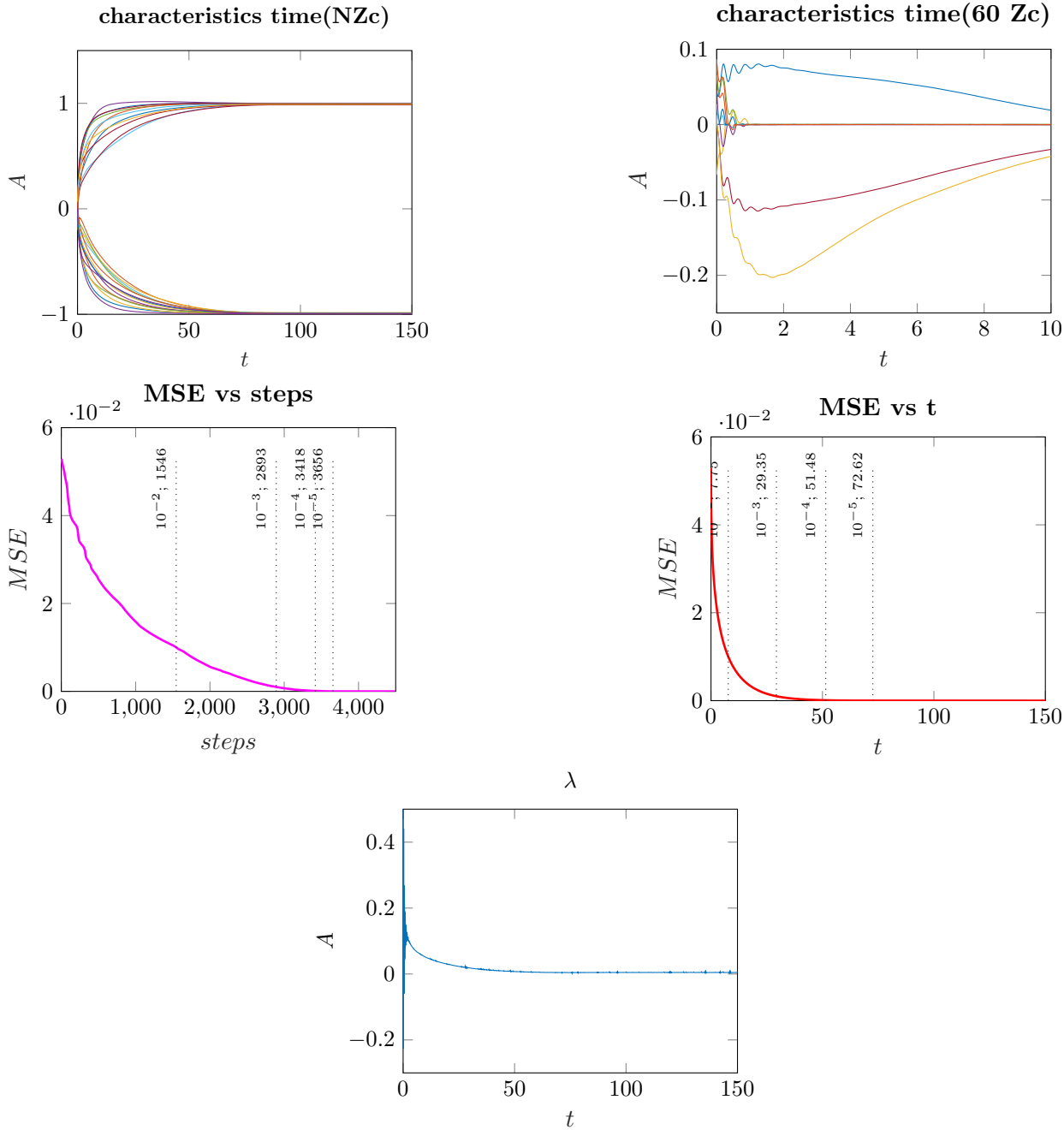
2.71 sim 4.22

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	2.9185E-04	00 : 34 : 28	150.00	6457	4.22
A	Nz	η	m	n	σ	
1	25	25	140	512	0.0020	



2.72 sim 4.23

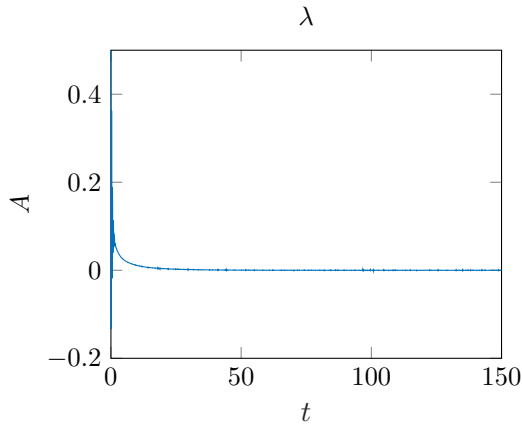
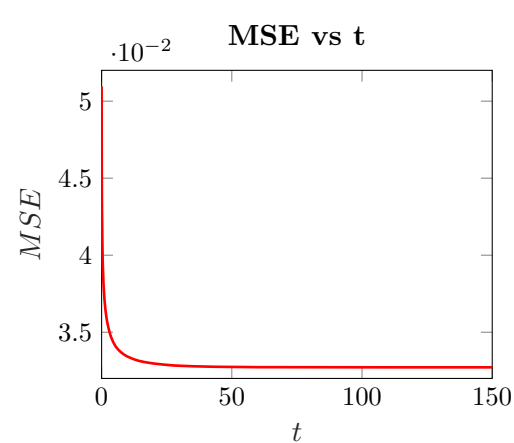
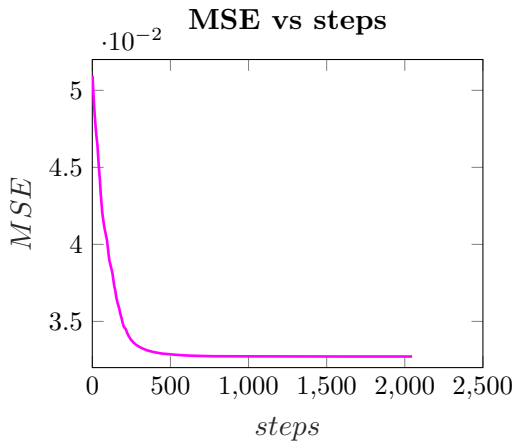
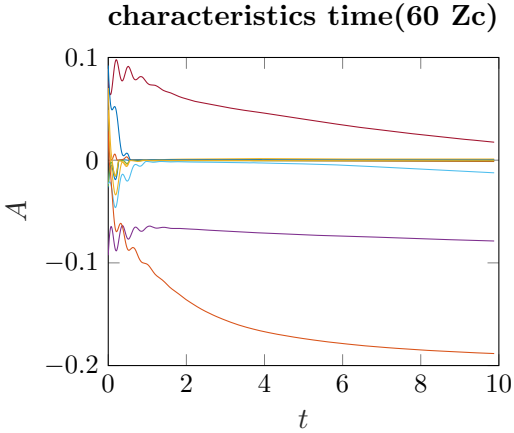
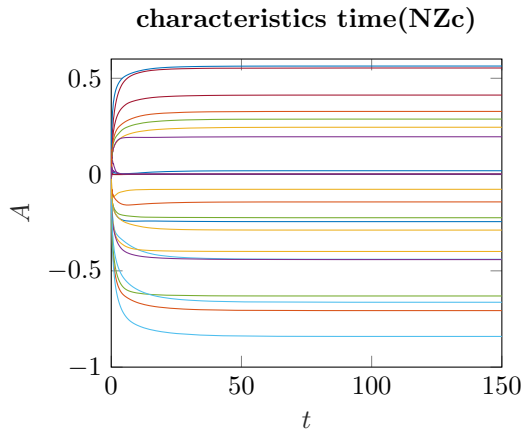
k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	4.1558E-06	00 : 24 : 07	150.00	4494	4.23
A	Nz	η	m	n	σ	
1	25	25	150	512	0.0020	



2.73 sim 4.149

k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$3.2724E-02$	00 : 11 : 35	150.00	2047	4.149

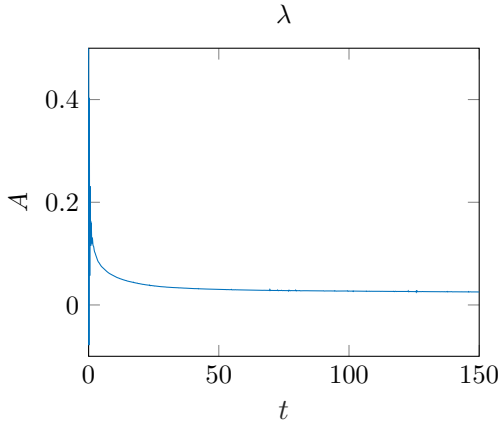
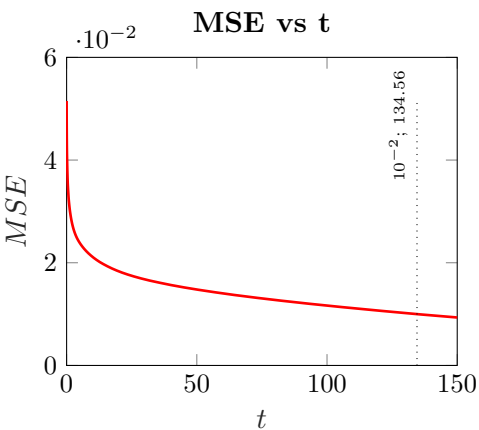
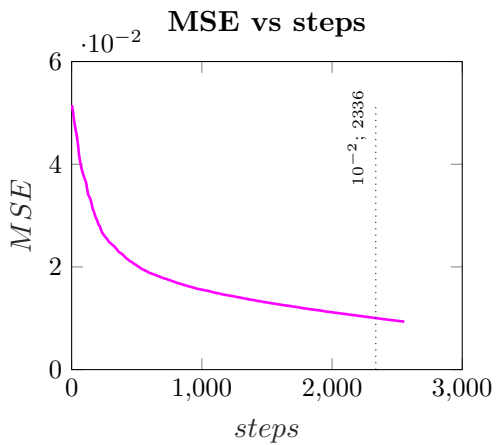
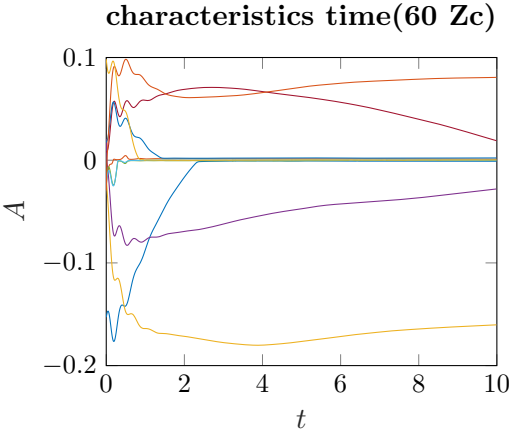
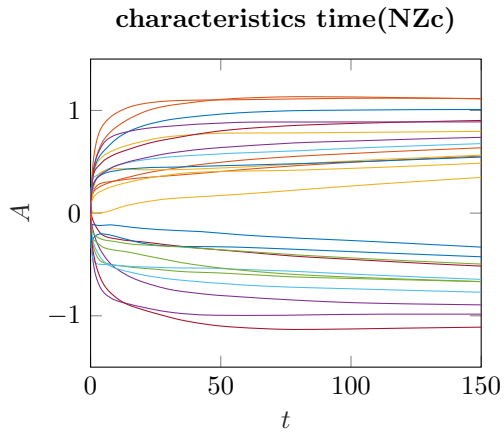
A	Nz	η	m	n	σ
1	25	25	80	512	0.0200



2.74 sim 4.150

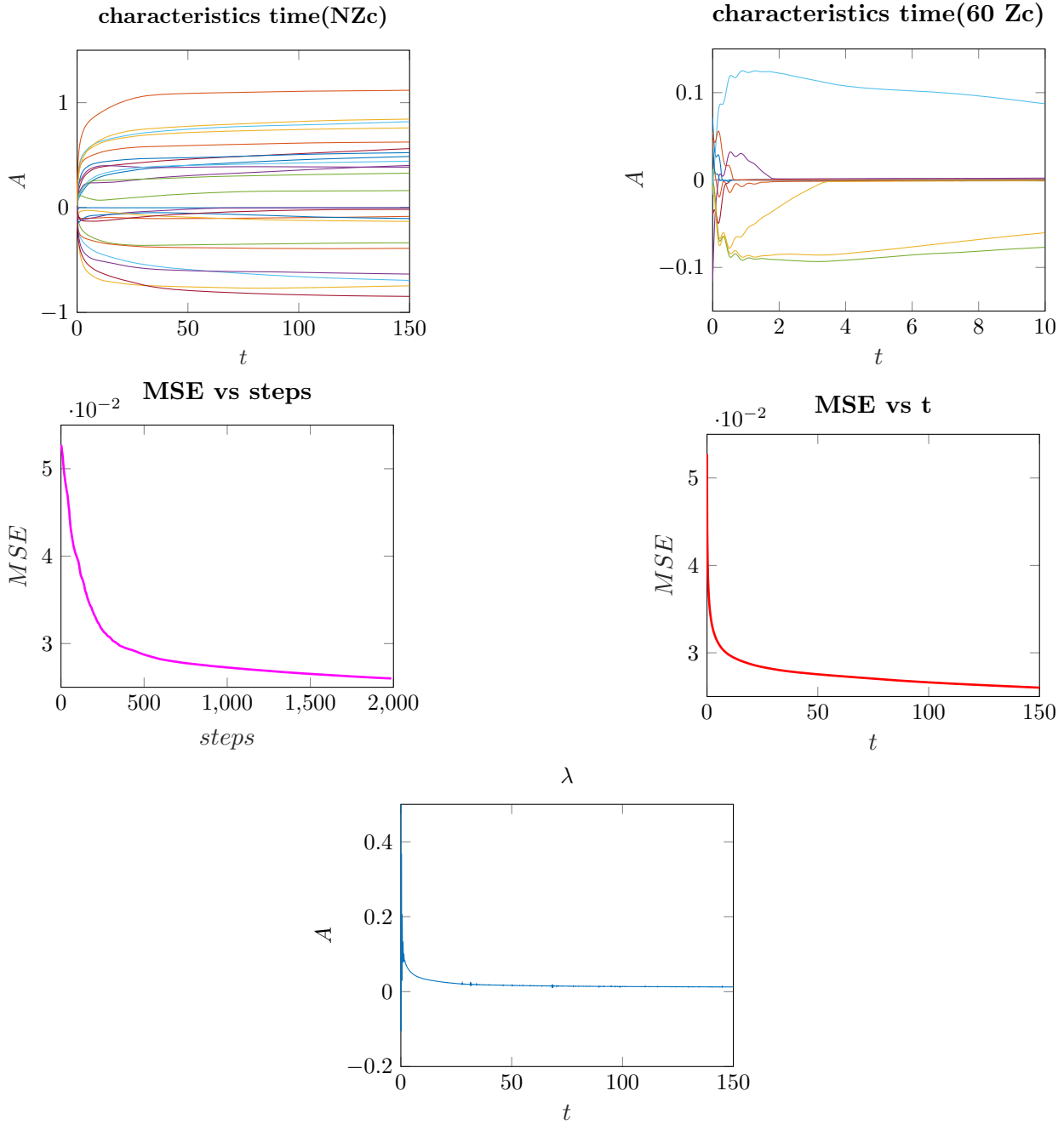
<i>k</i>	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	9.3374E-03	00 : 14 : 17	150.00	2555	4.150

<i>A</i>	<i>Nz</i>	η	<i>m</i>	<i>n</i>	σ
1	25	25	90	512	0.0200



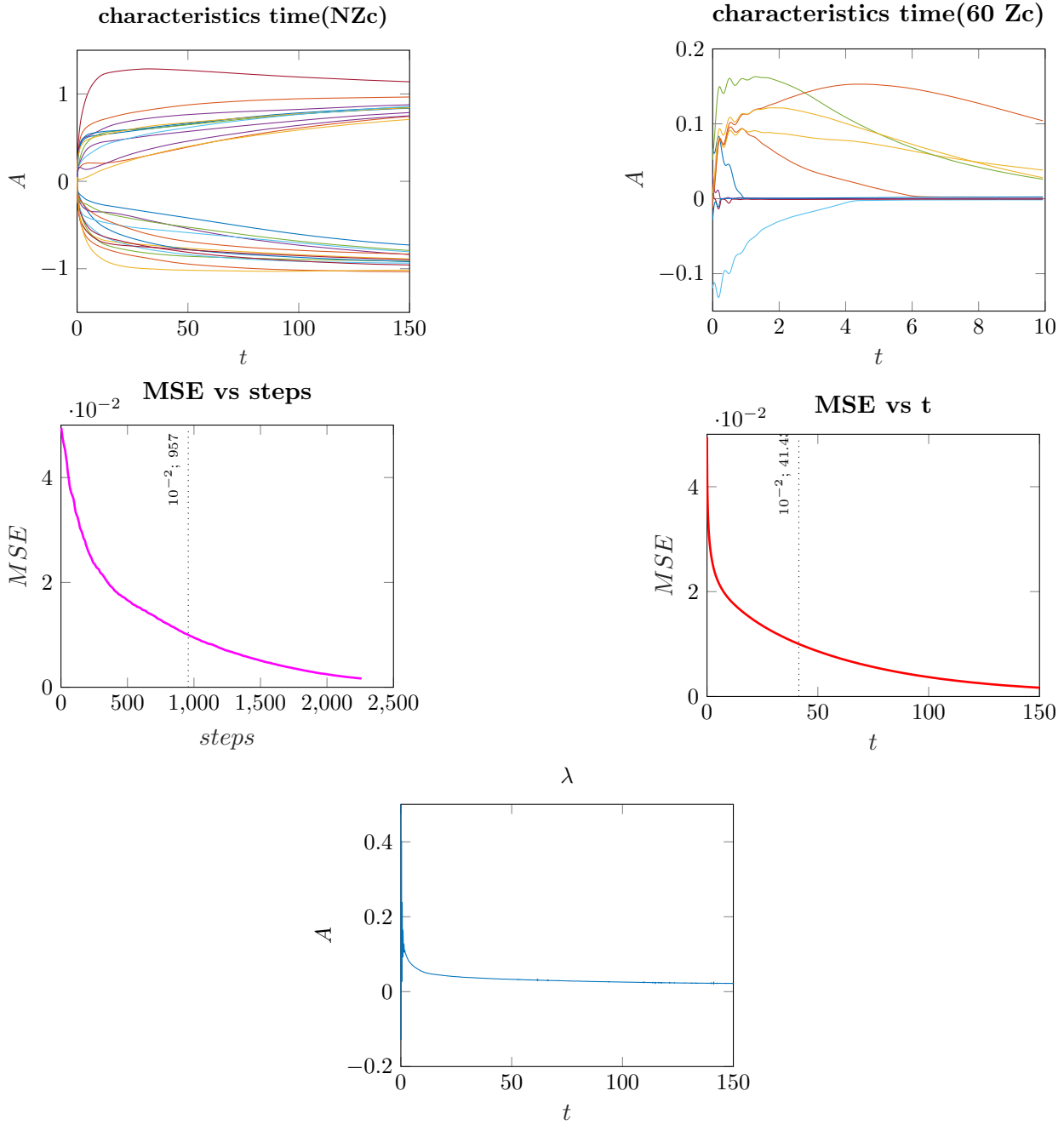
2.75 sim 4.143

k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$2.6011E-02$	00 : 11 : 05	150.00	1987	4.143
A	Nz	η	m	n	σ	
1	25	25	100	512	0.0200	



2.76 sim 4.144

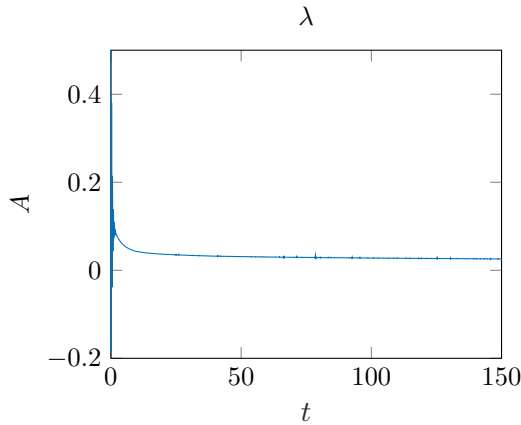
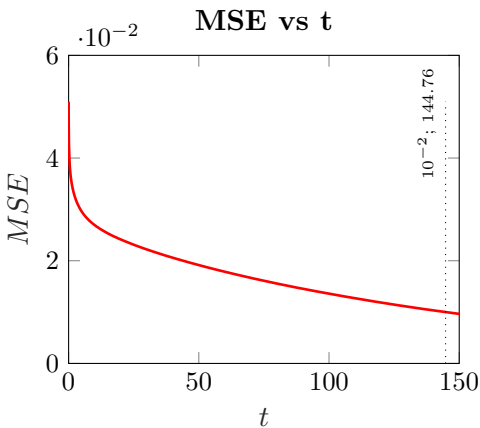
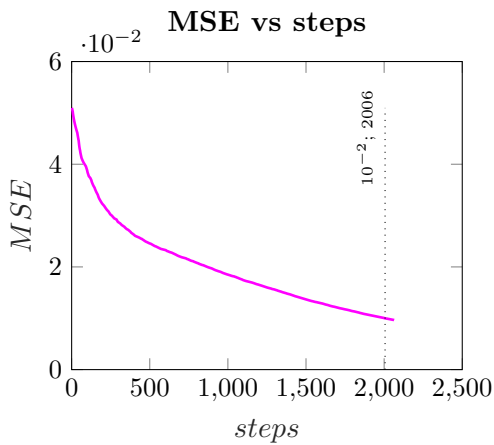
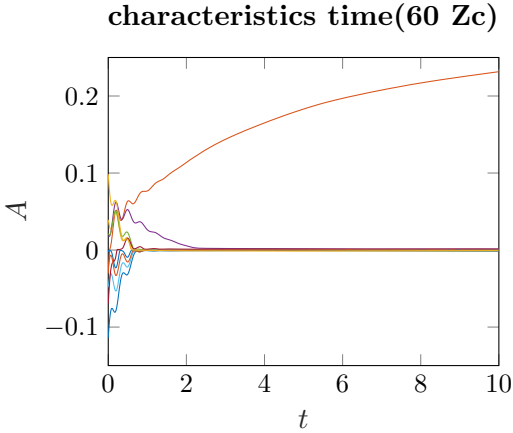
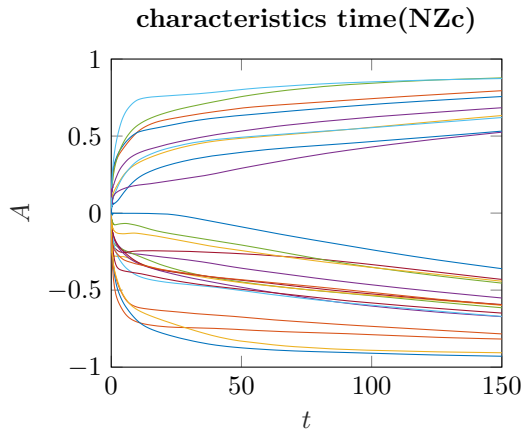
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$1.6733E-03$	00 : 12 : 31	150.00	2260	4.144
A	Nz	η	m	n	σ	
1	25	25	110	512	0.0200	



2.77 sim 4.145

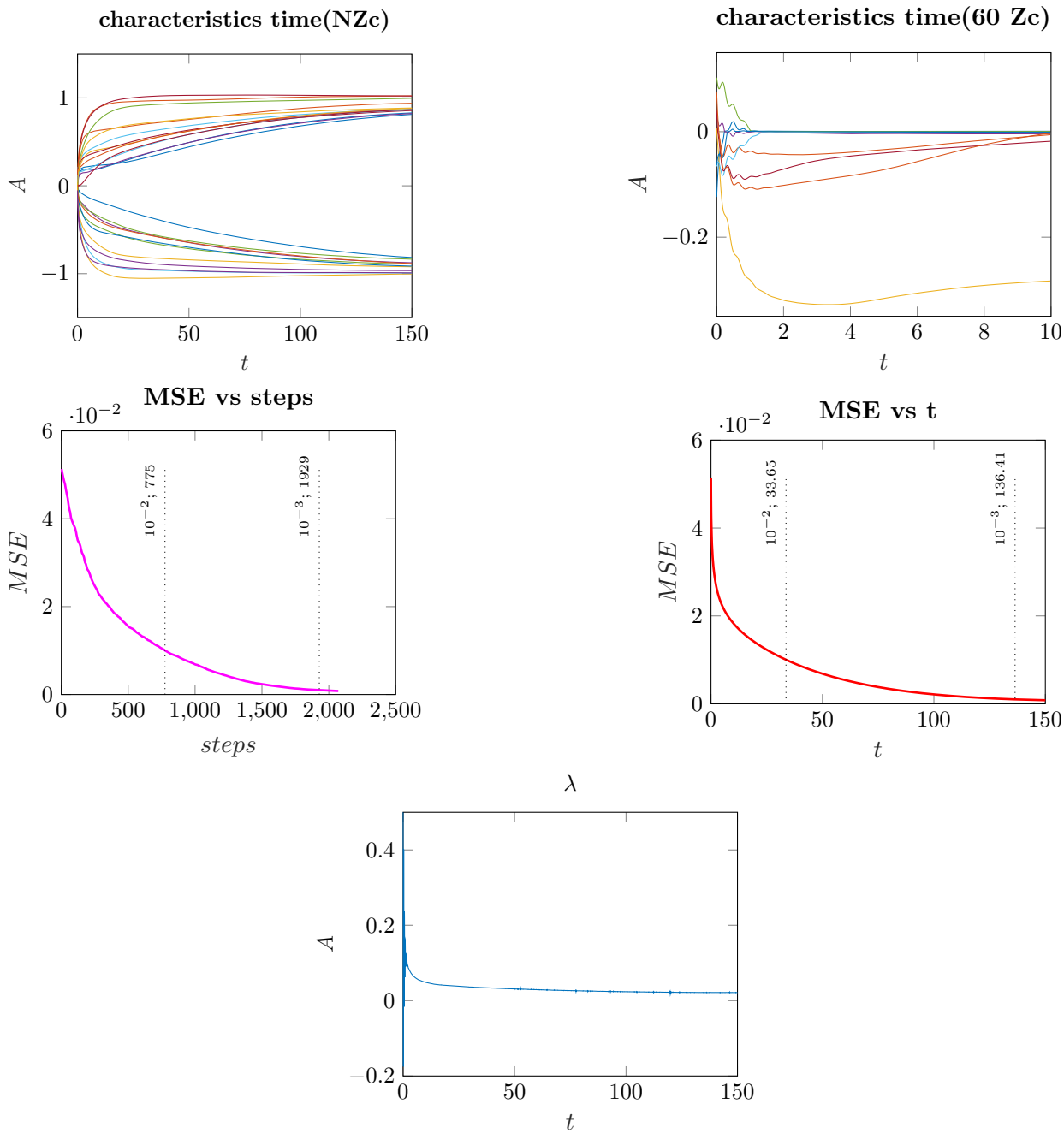
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	9.6481E-03	00 : 11 : 26	150.00	2064	4.145

A	Nz	η	m	n	σ
1	25	25	120	512	0.0200



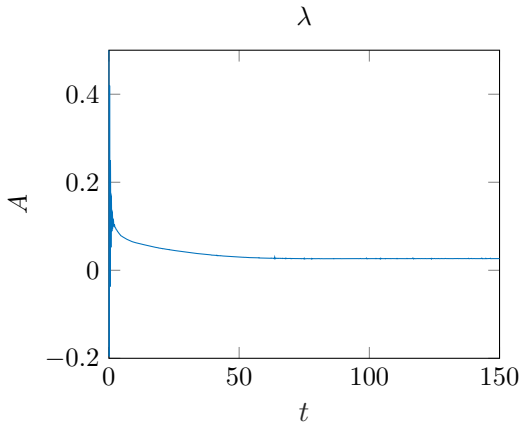
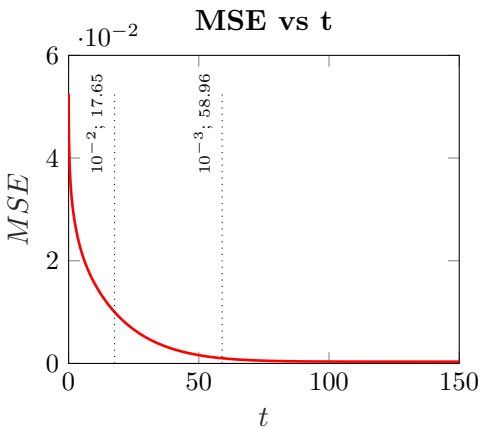
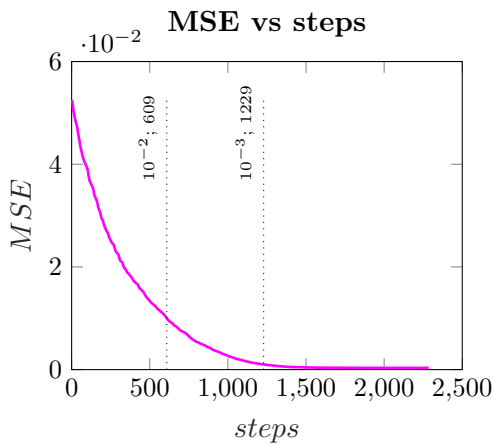
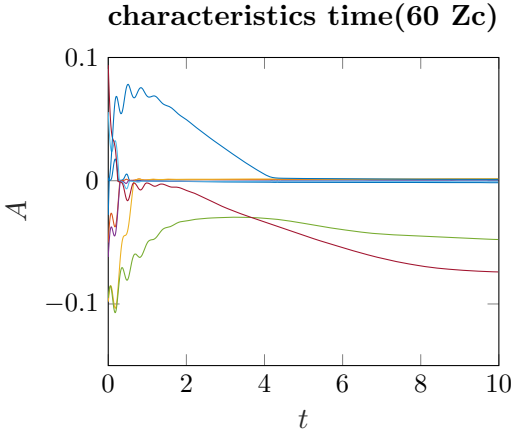
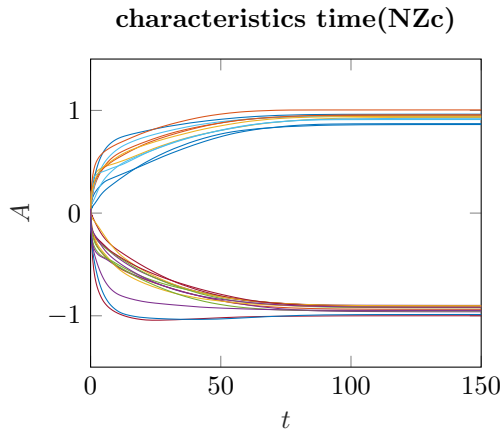
2.78 sim 4.146

k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$8.1350E-04$	00 : 11 : 31	150.00	2071	4.146
A	Nz	η	m	n	σ	
1	25	25	130	512	0.0200	



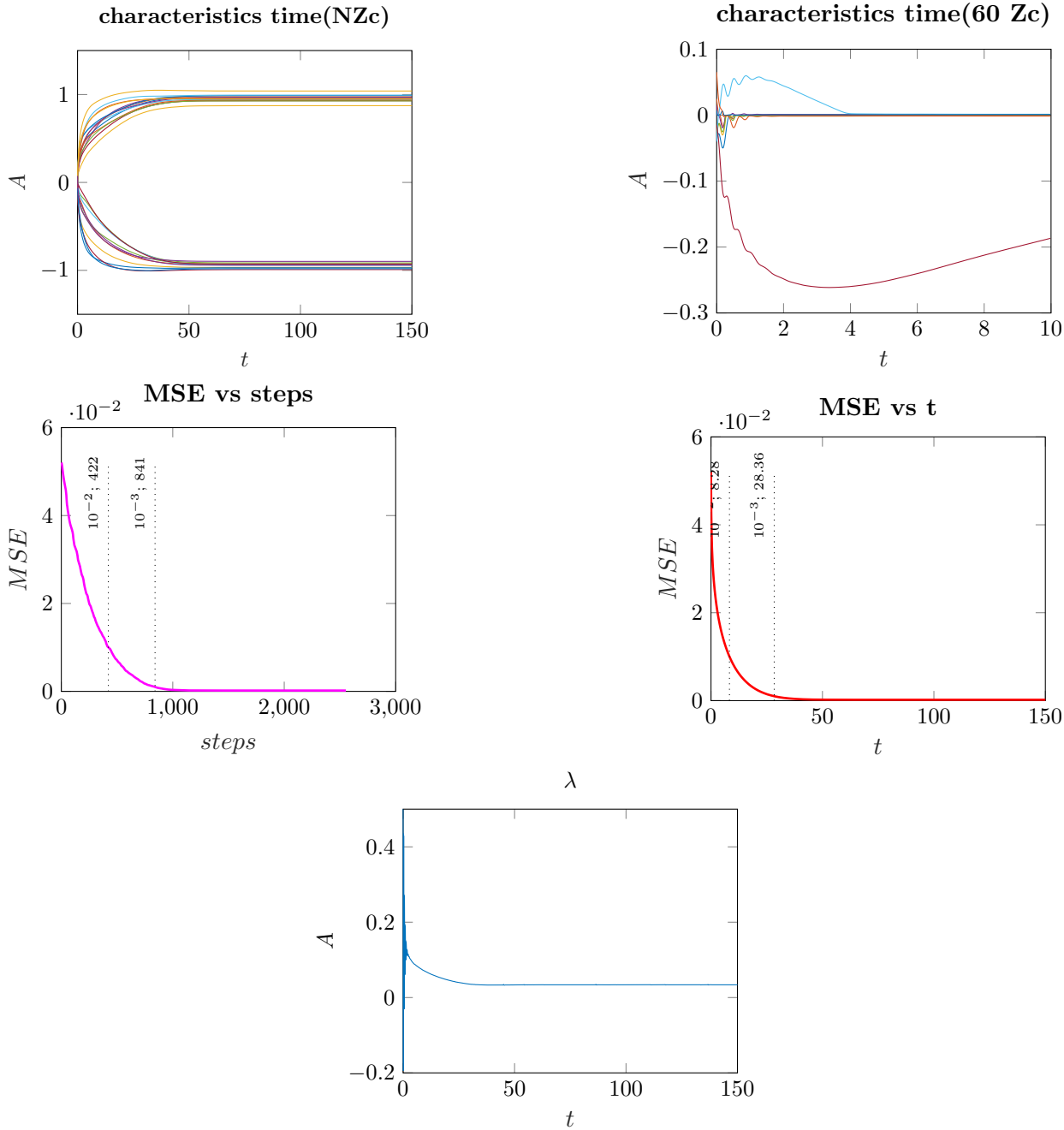
2.79 sim 4.147

k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$3.3771E-04$	00 : 12 : 36	150.00	2286	4.147
A	Nz	η	m	n	σ	
1	25	25	140	512	0.0200	



2.80 sim 4.148

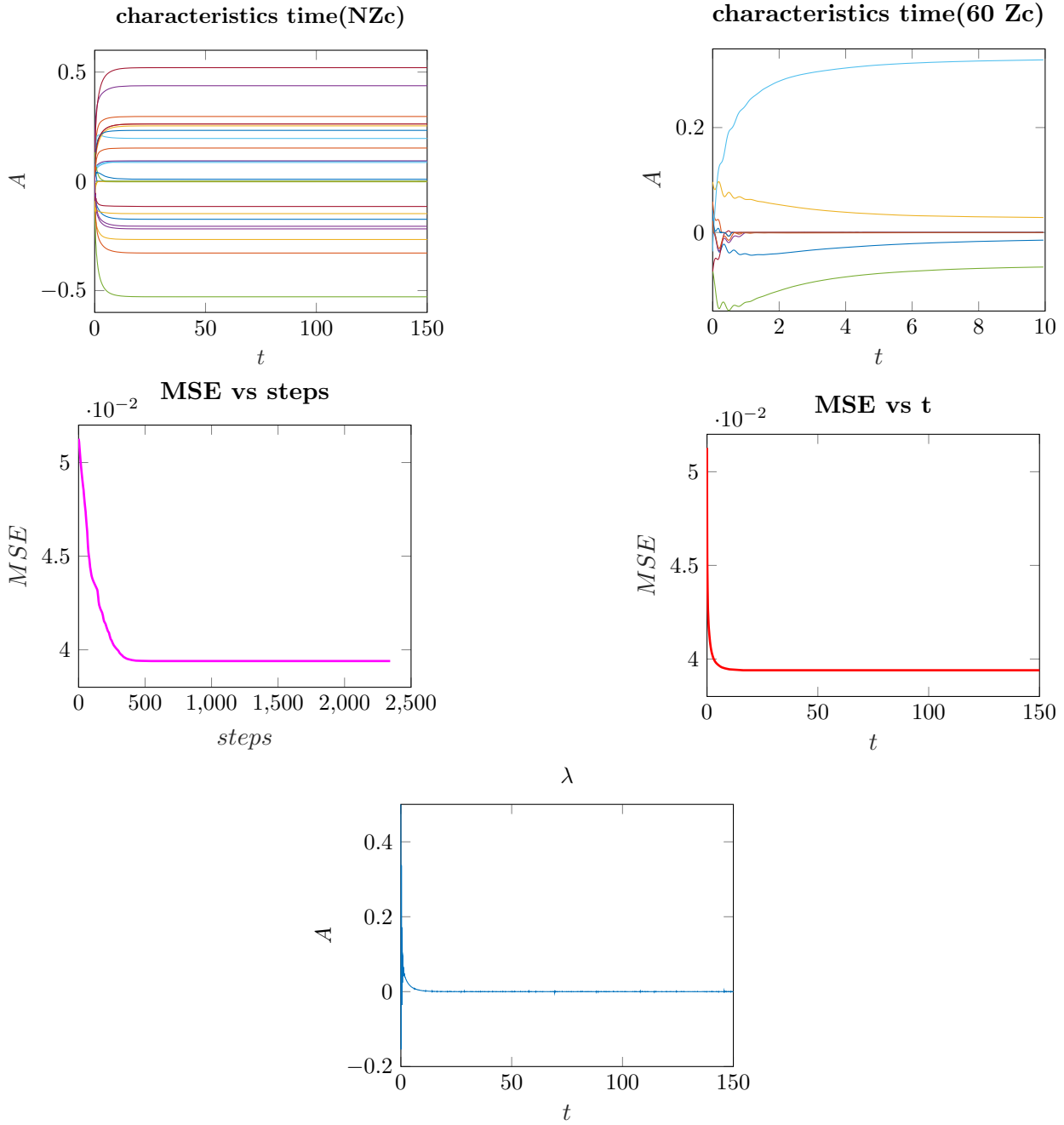
k	ϕ	MSE	ExTime	t_{max}	steps	id
1000	U	$1.9166E-04$	00 : 14 : 12	150.00	2553	4.148
A	Nz	η	m	n	σ	
1	25	25	150	512	0.0200	



2.81 sim 4.136

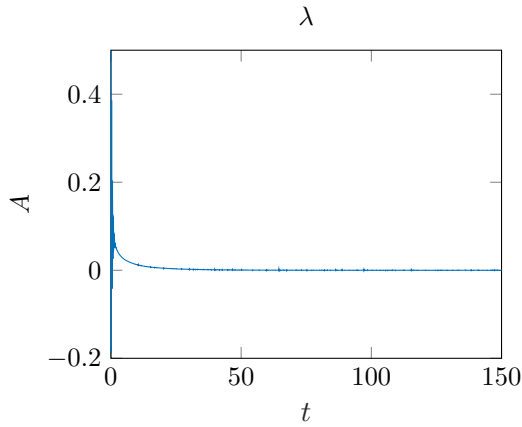
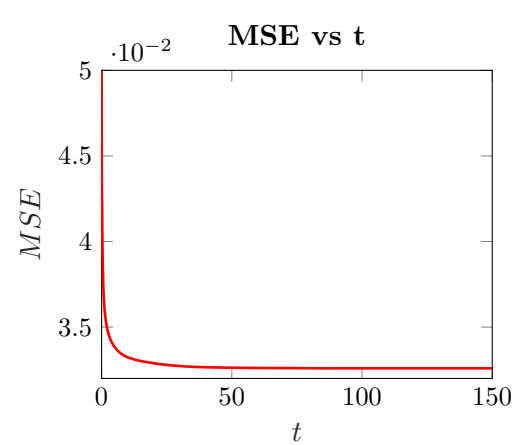
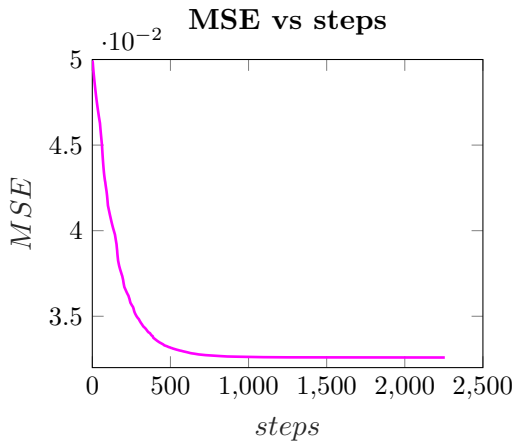
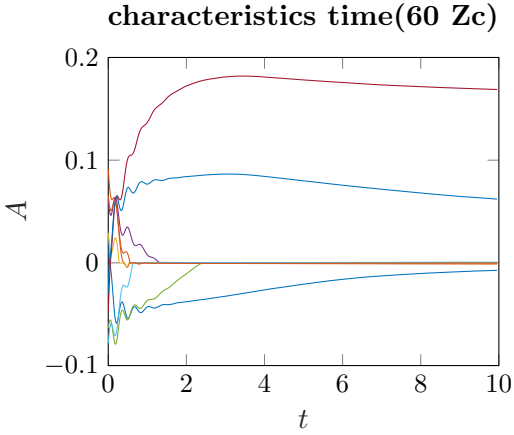
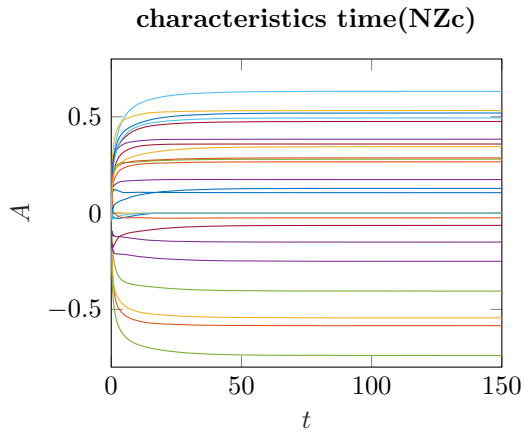
k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$3.9395E-02$	00 : 13 : 19	150.00	2343	4.136

A	Nz	η	m	n	σ
1	25	25	80	512	0.0200



2.82 sim 4.137

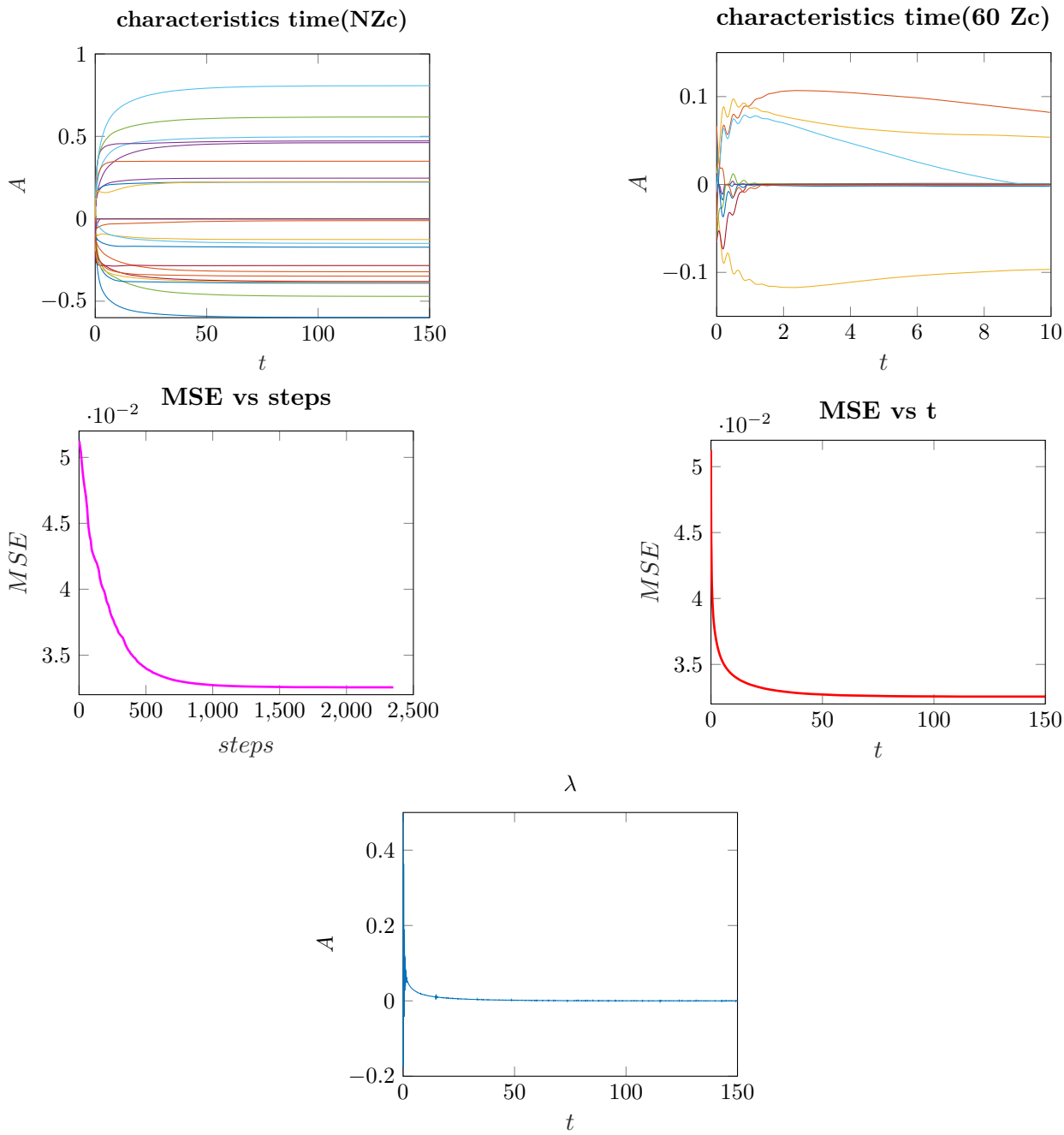
k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$3.2592E-02$	00 : 12 : 37	150.00	2256	4.137
A	Nz	η	m	n	σ	
1	25	25	90	512	0.0200	



2.83 sim 4.130

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$3.2556E-02$	00 : 13 : 26	150.00	2350	4.130

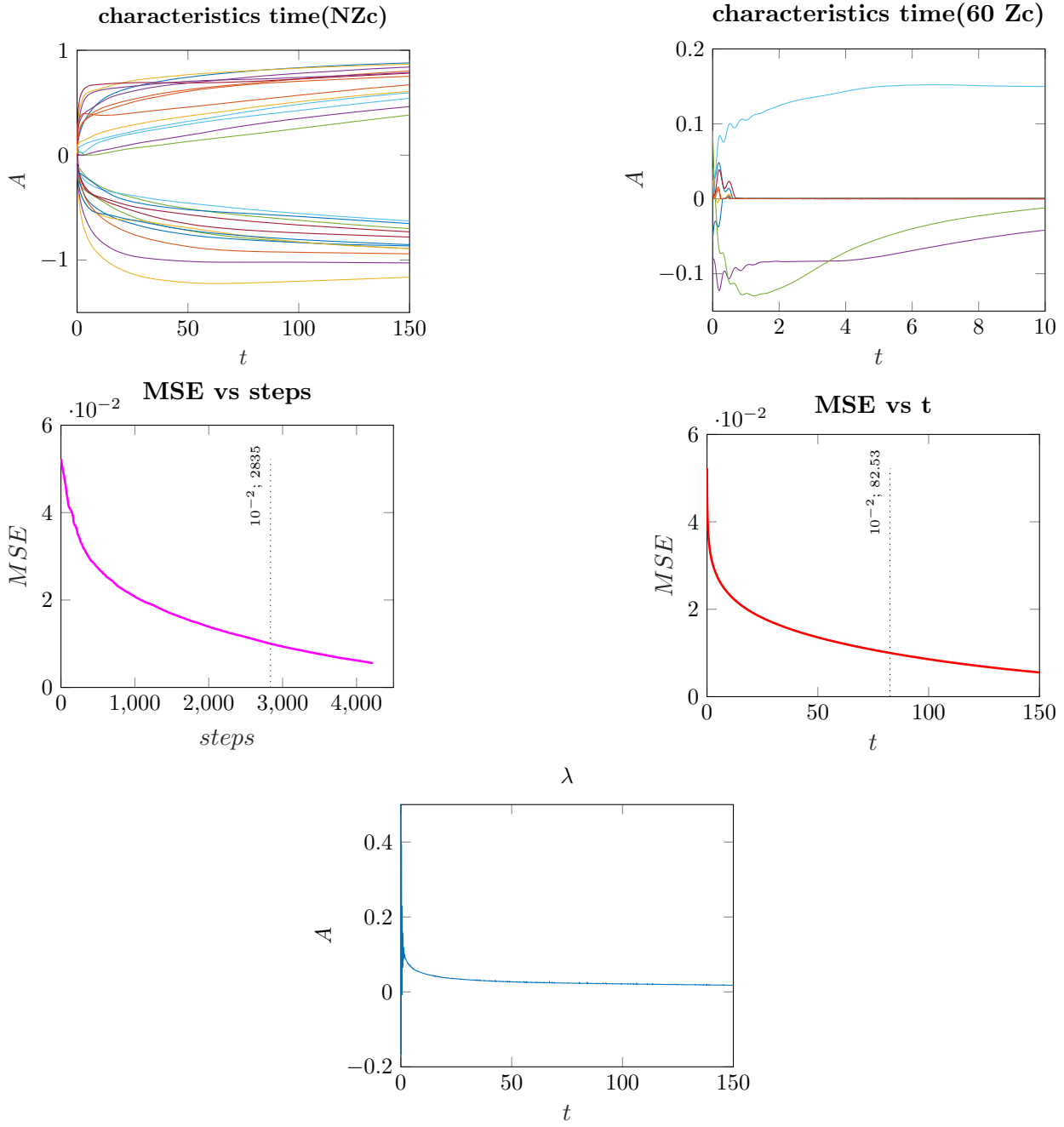
A	Nz	η	m	n	σ
1	25	25	100	512	0.0200



2.84 sim 4.131

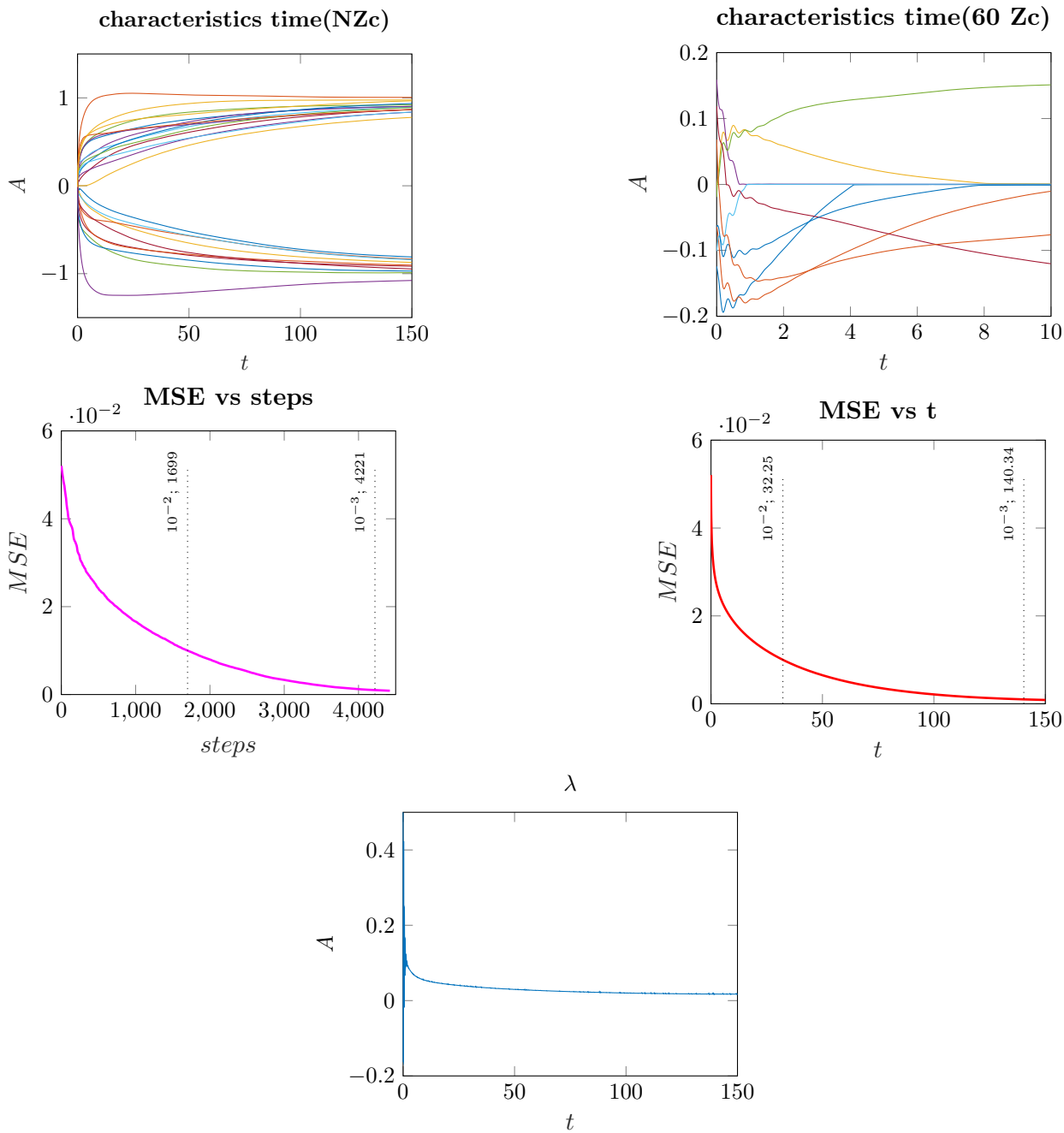
k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$5.5361E-03$	00 : 23 : 29	150.00	4223	4.131

A	Nz	η	m	n	σ
1	25	25	110	512	0.0200



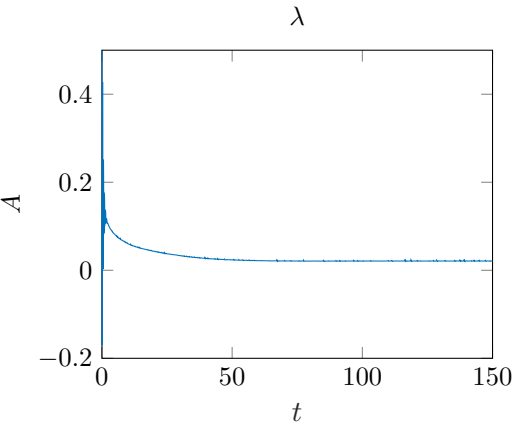
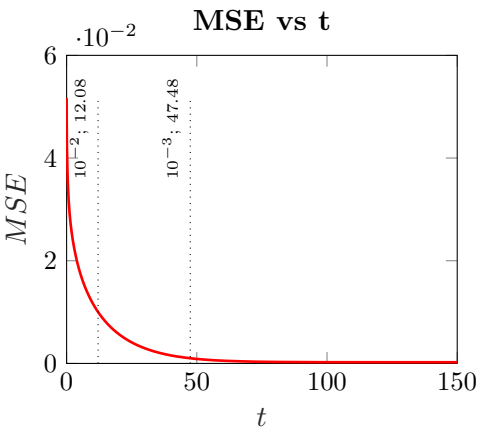
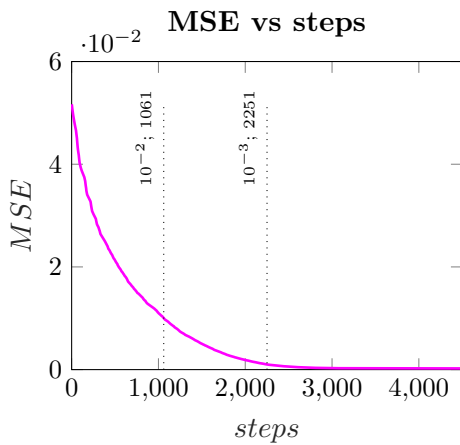
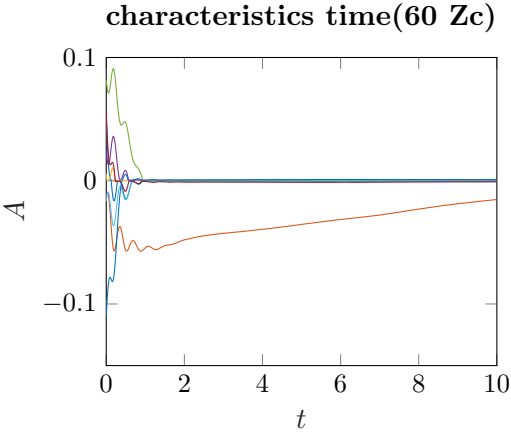
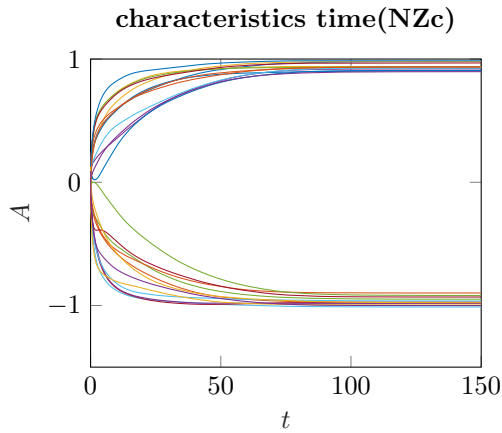
2.85 sim 4.132

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$8.7281E-04$	00 : 24 : 51	150.00	4422	4.132
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A	Nz	η	m	n	σ	
1	25	25	120	512	0.0200	



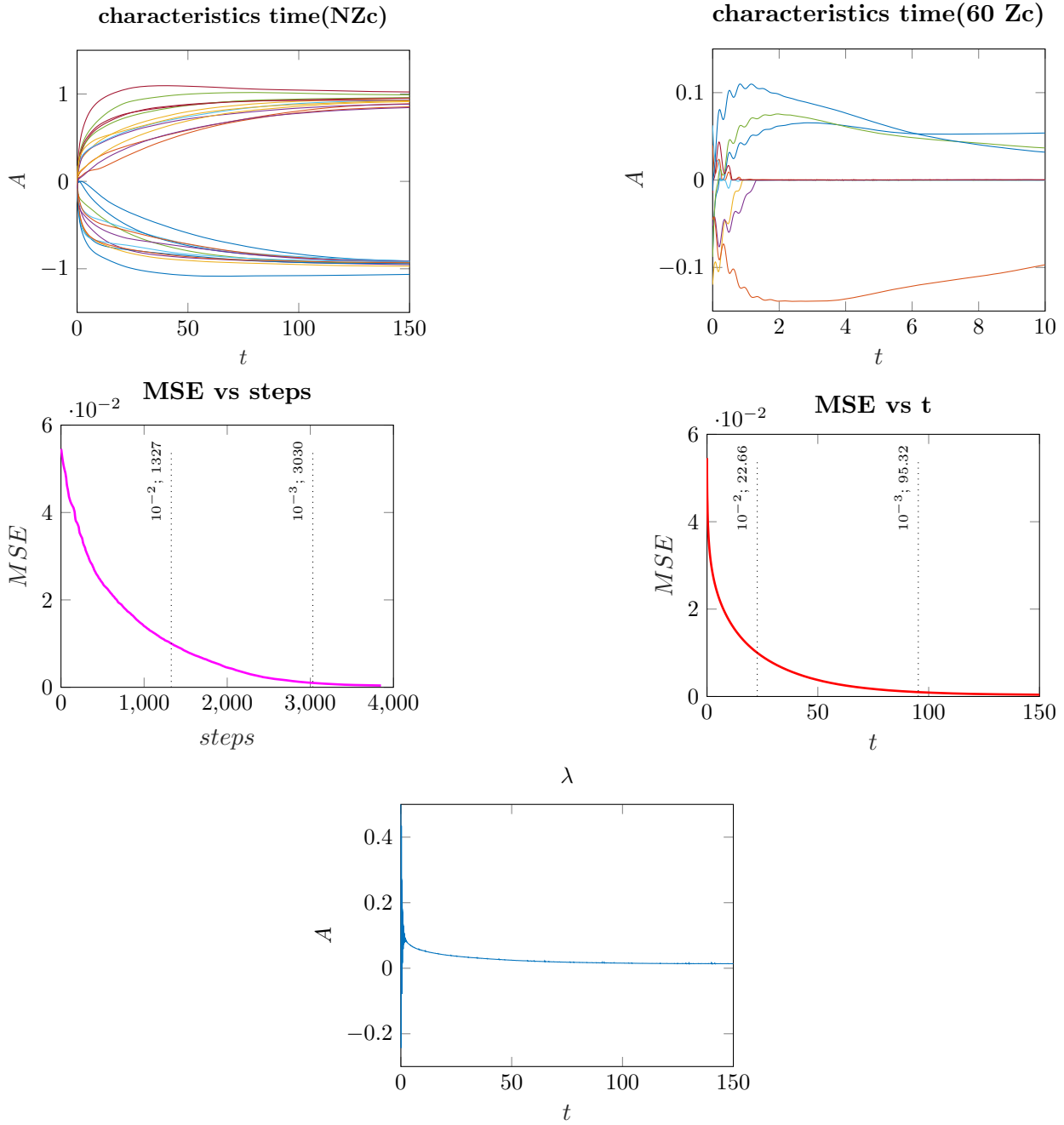
2.86 sim 4.133

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$2.2547E-04$	00 : 25 : 26	150.00	4493	4.133
A	Nz	η	m	n	σ	
1	25	25	130	512	0.0200	



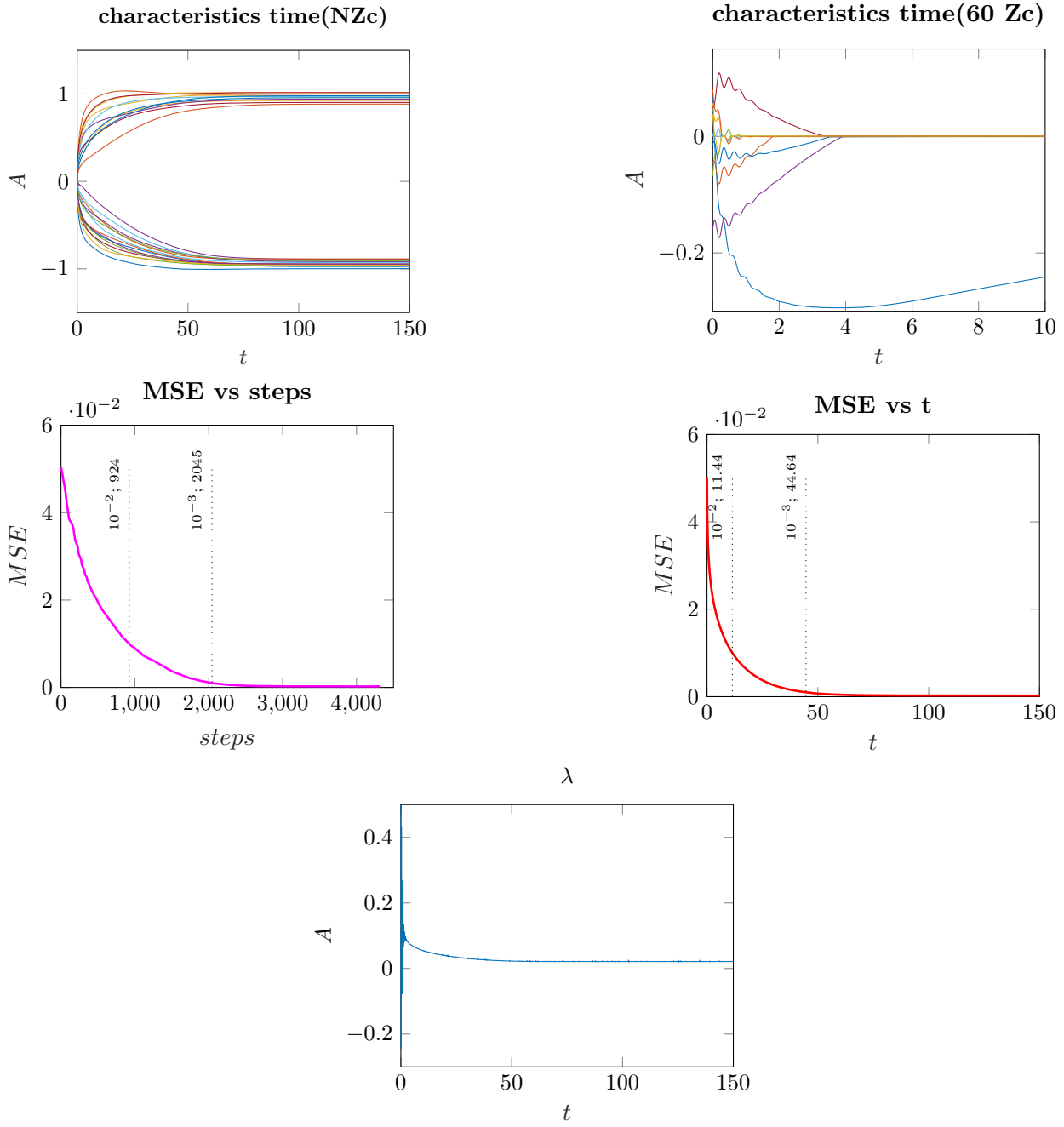
2.87 sim 4.134

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$4.1474E-04$	00 : 21 : 39	150.00	3850	4.134
A	Nz	η	m	n	σ	
1	25	25	140	512	0.0200	



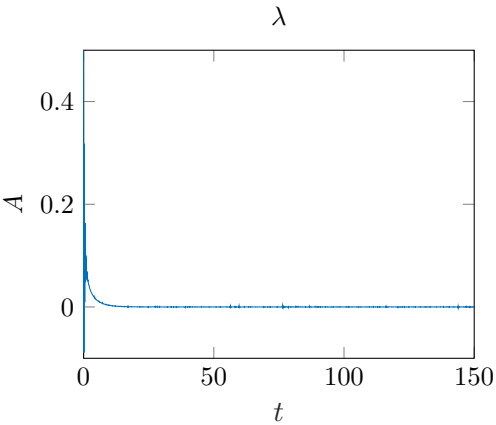
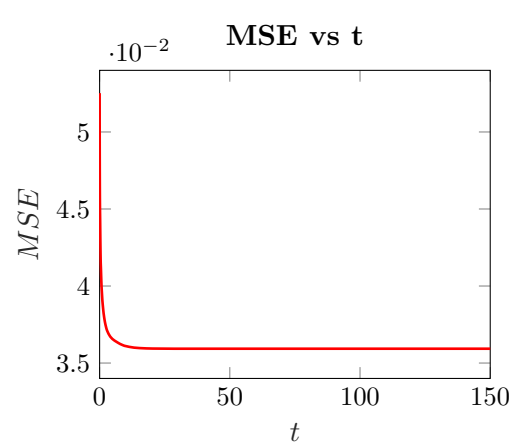
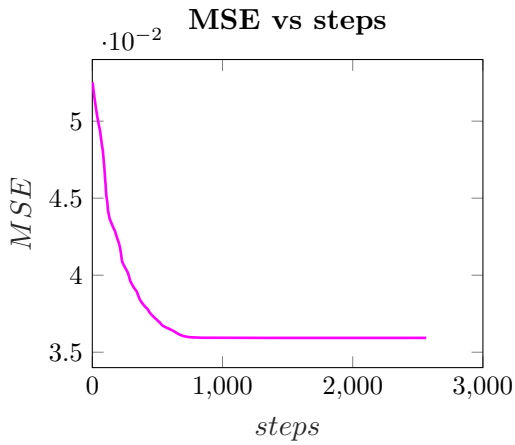
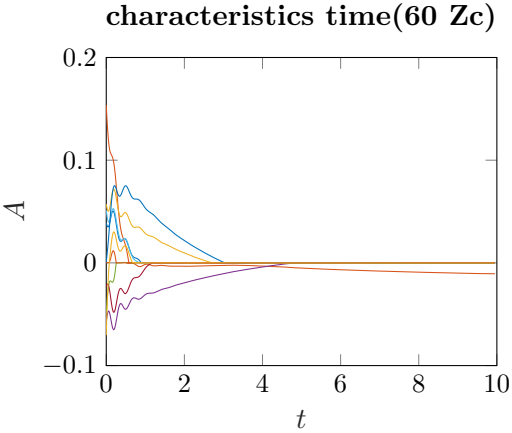
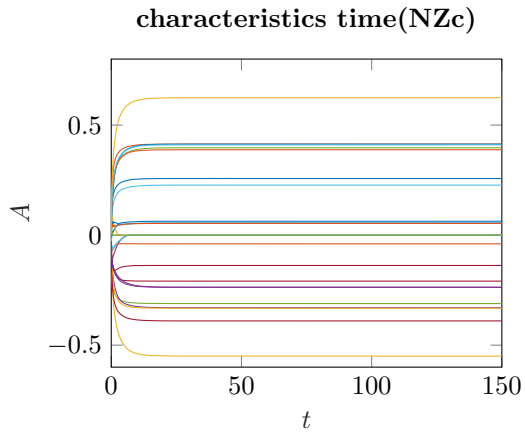
2.88 sim 4.135

k	ϕ	MSE	ExTime	t_{max}	steps	id
2500	U	$2.4462E-04$	00 : 24 : 35	150.00	4327	4.135
A	Nz	η	m	n	σ	
1	25	25	150	512	0.0200	



2.89 sim 4.124

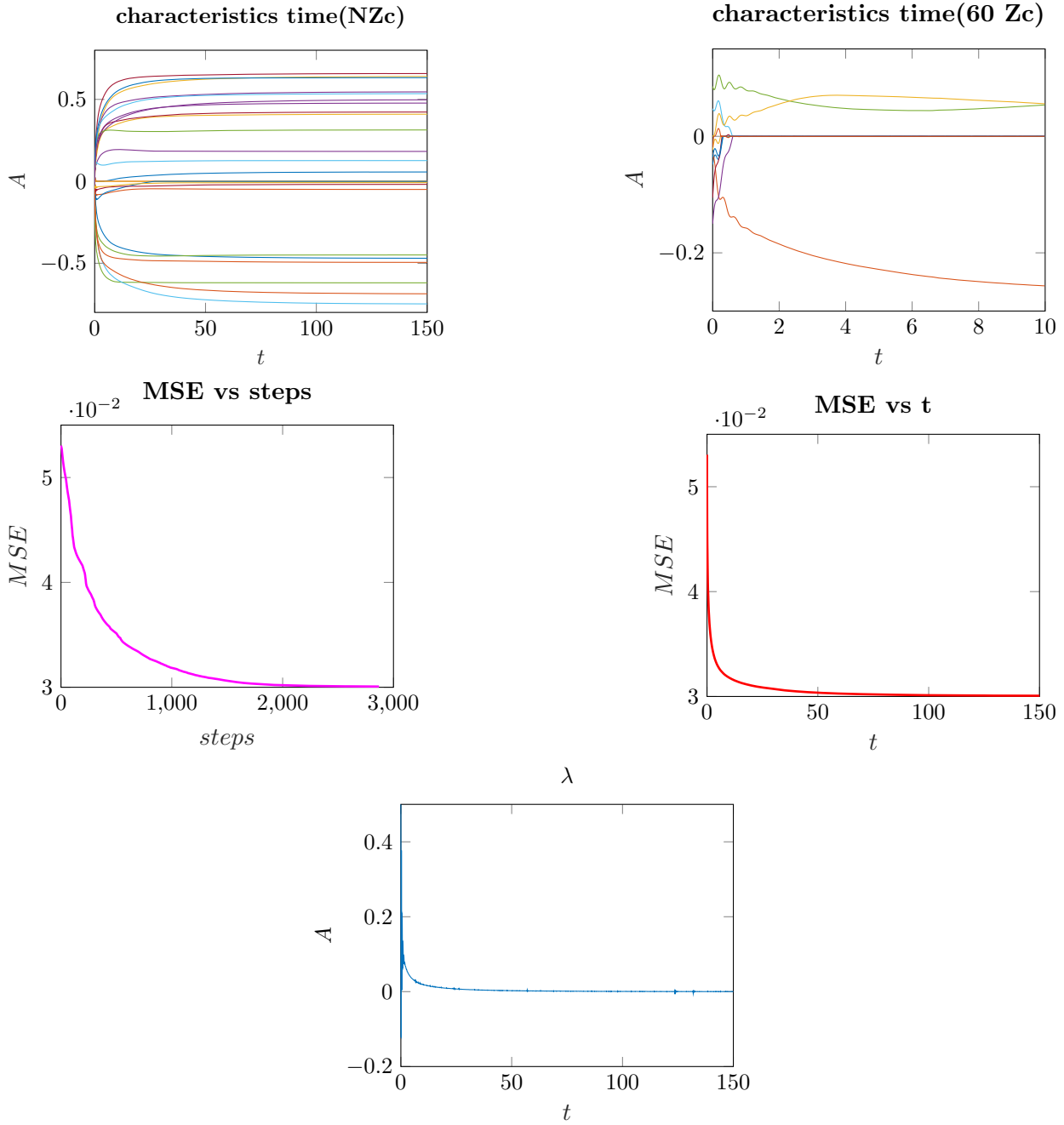
k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$3.5932E-02$	00 : 14 : 32	150.00	2565	4.124
A	Nz	η	m	n	σ	
1	25	25	80	512	0.0200	



2.90 sim 4.125

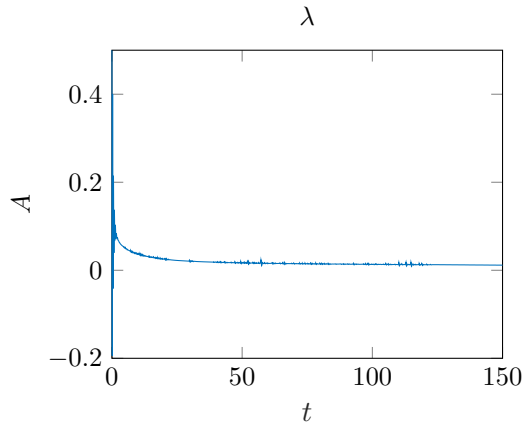
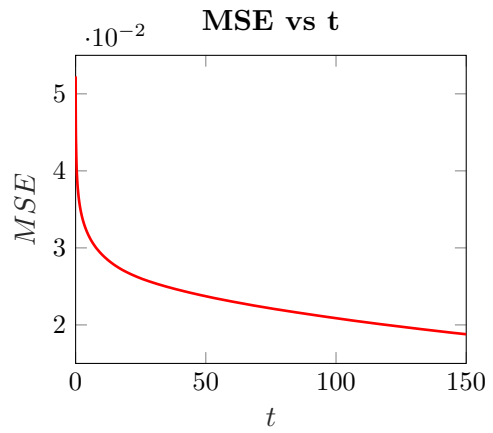
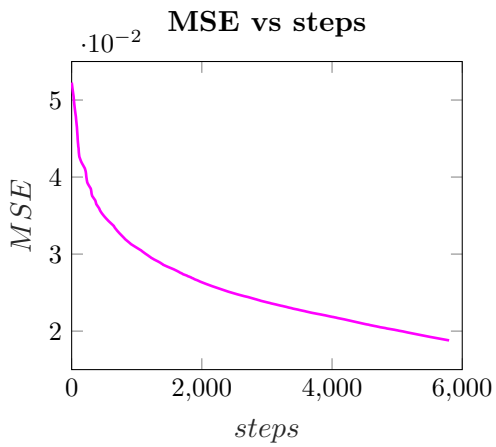
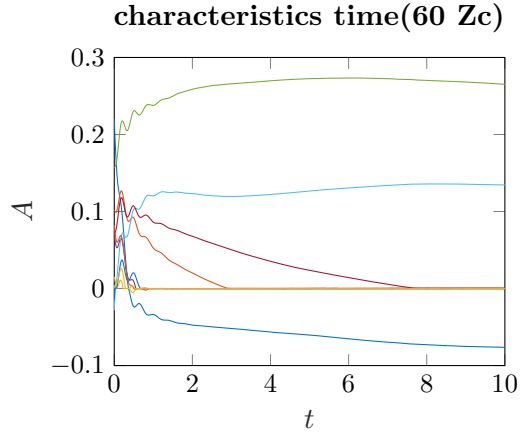
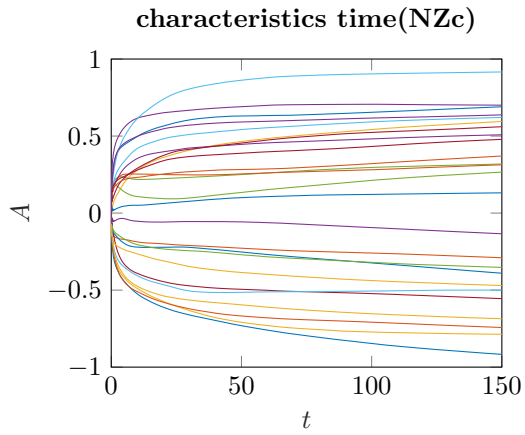
k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$3.0071E-02$	00 : 15 : 49	150.00	2869	4.125

A	Nz	η	m	n	σ
1	25	25	90	512	0.0200



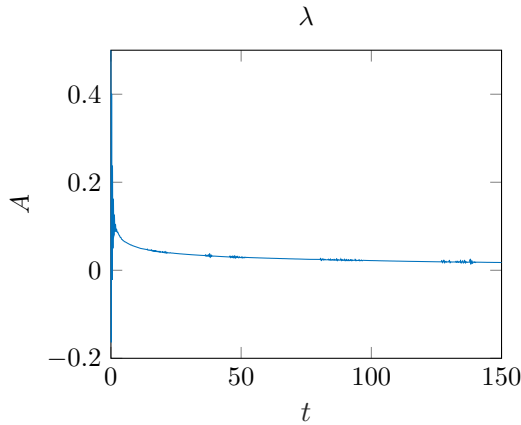
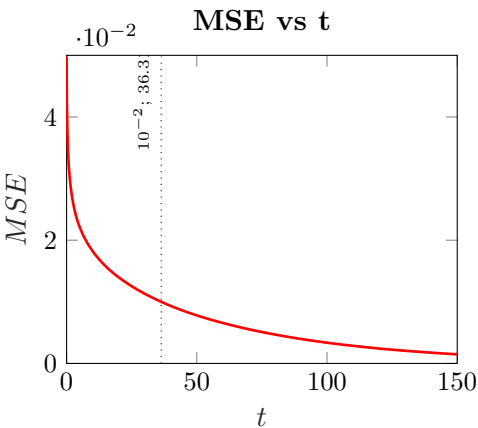
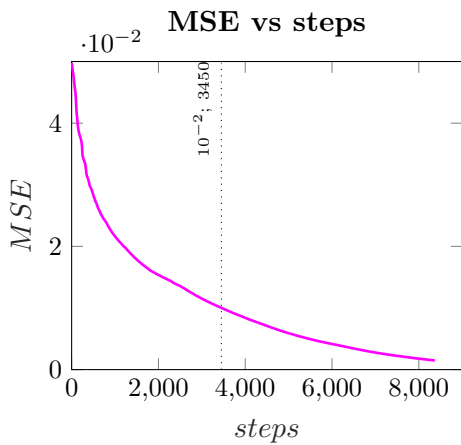
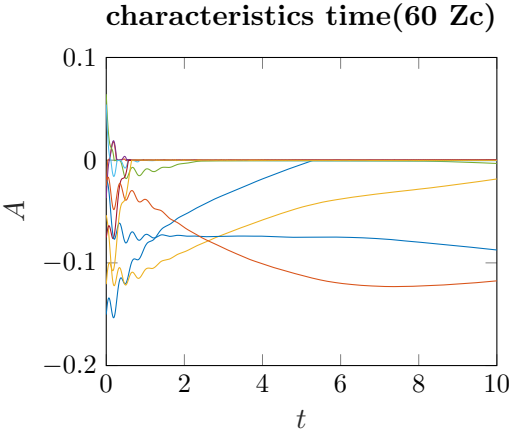
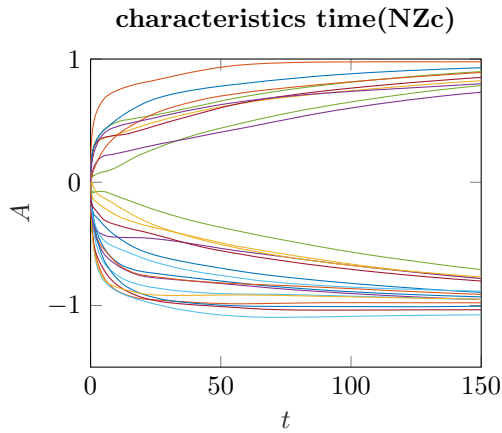
2.91 sim 4.118

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$1.8789E-02$	00 : 30 : 54	150.00	5798	4.118
A	Nz	η	m	n	σ	
1	25	25	100	512	0.0200	



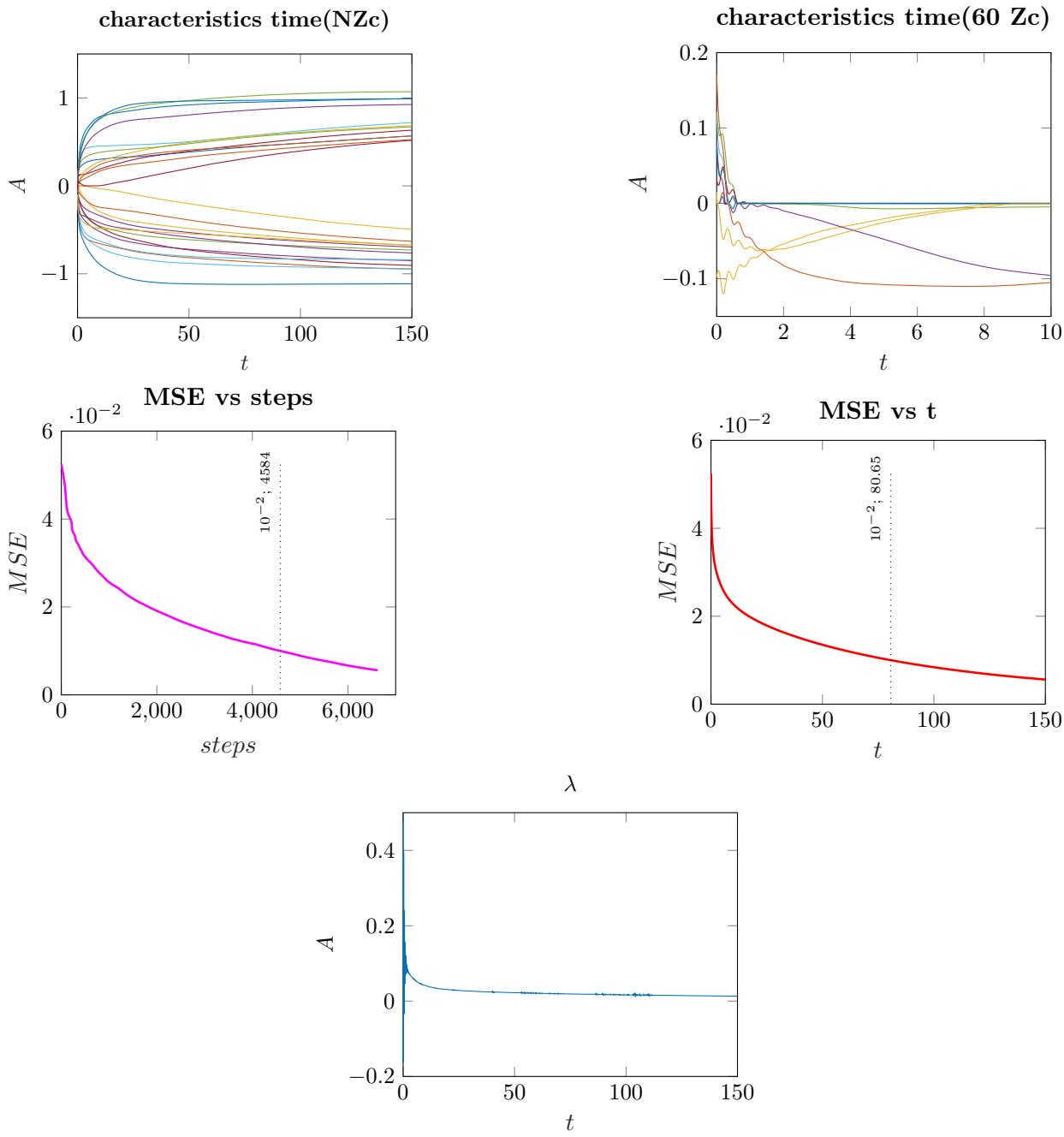
2.92 sim 4.119

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$1.4839E-03$	00 : 43 : 38	150.00	8368	4.119
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A	Nz	η	m	n	σ	
1	25	25	110	512	0.0200	



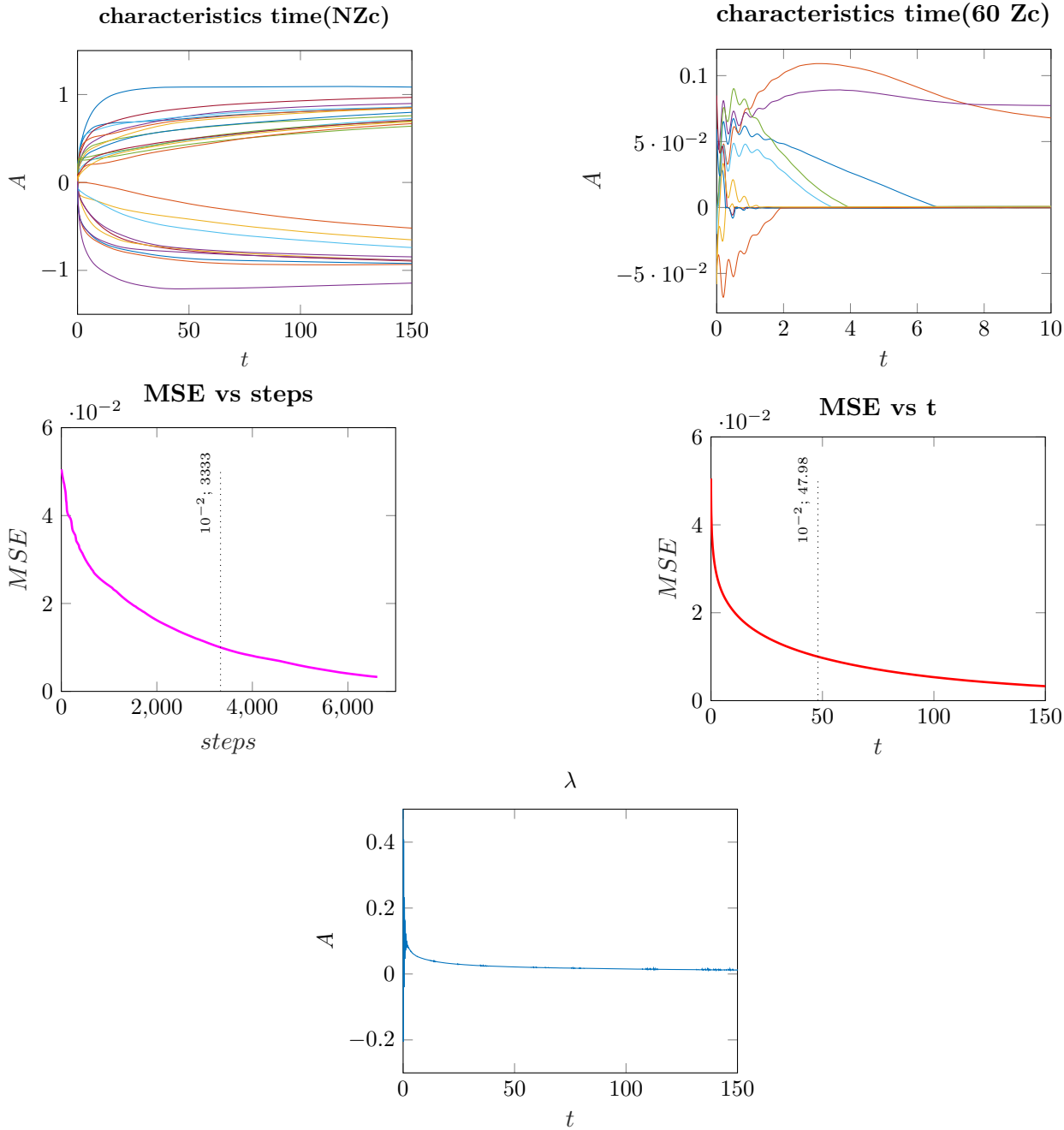
2.93 sim 4.120

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$5.5903E-03$	00 : 35 : 23	150.00	6624	4.120
A	Nz	η	m	n	σ	
1	25	25	120	512	0.0200	



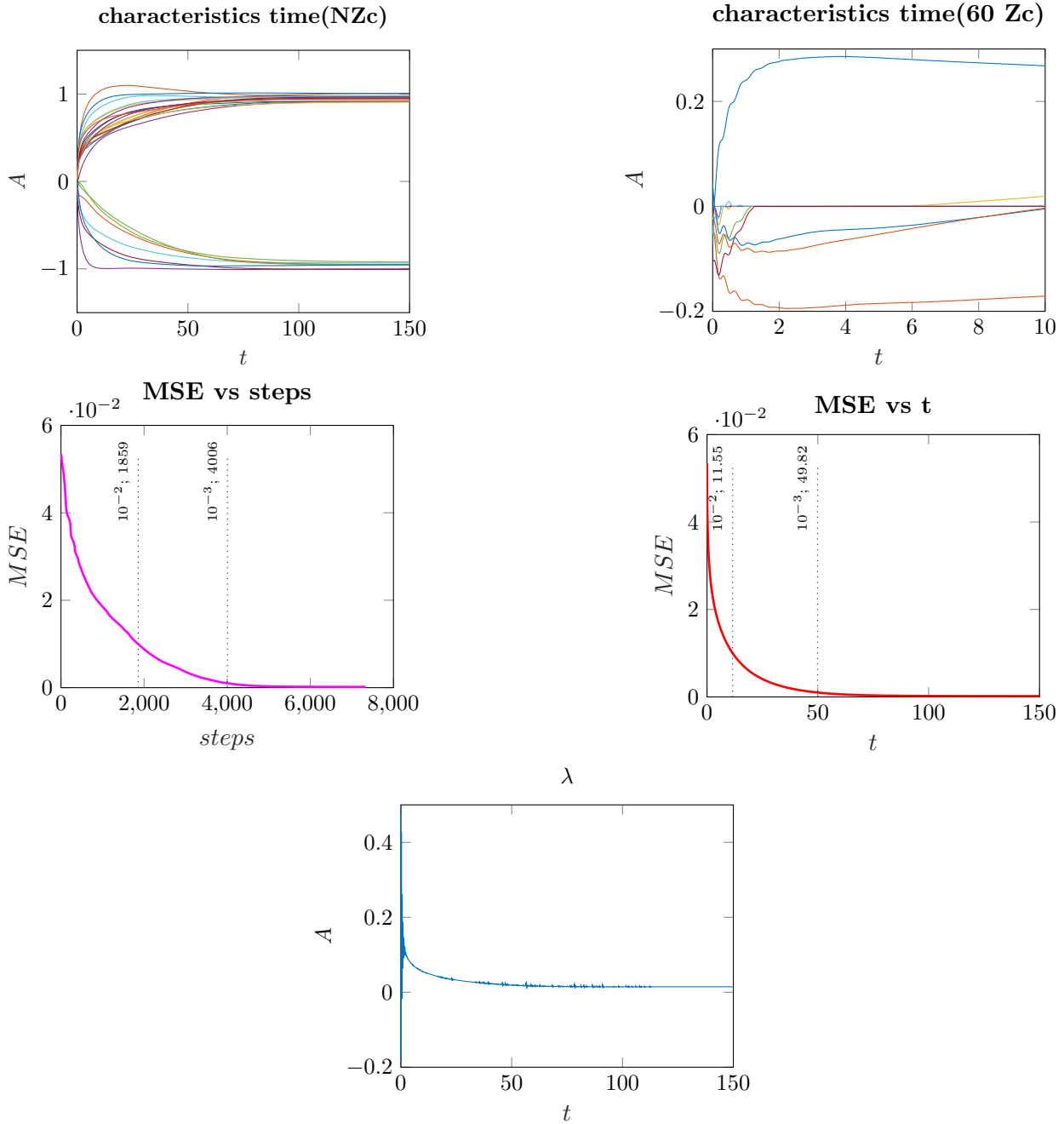
2.94 sim 4.121

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$3.2871E-03$	00 : 35 : 08	150.00	6616	4.121
A	Nz	η	m	n	σ	
1	25	25	130	512	0.0200	



2.95 sim 4.122

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$1.7926E-04$	00 : 38 : 38	150.00	7332	4.122
A	Nz	η	m	n	σ	
1	25	25	140	512	0.0200	



2.96 sim 4.123

k	ϕ	MSE	ExTime	t_{max}	steps	id
5000	U	$2.7108E-04$	00 : 36 : 14	150.00	6838	4.123
A	Nz	η	m	n	σ	
1	25	25	150	512	0.0200	

