

SFB-Workshop Time Integration of PDEs, 7.-11.10.2019

Teilnehmer und Vorträge

	Name	Titel
1	Baumstark, Julian	Long-Time Analysis of Nonlinearly Perturbed Wave Equations Via Modulated Fourier Expansions [8]
2	Briel, Marius	Fehlerschranken für exponentielle Matrix-Splitting-Verfahren
3	Carle, Constantin	High-order locally-implicit time integration schemes for linear ODEs [15]
4	Dörich, Benjamin	Nonlinear semigroups with applications to stability analysis [10, 16]
5	Freese, Jan Philip	Long time wave propagation in heterogeneous media [1, 2, 3, 4]
6	Grimm, Volker	Approximation of the matrix exponential on the negative real line [5]
7	Hochbruck, Marlis	—
8	Kliesch, Tobias	—
9	Köhler, Jonas	Fourth-order energy-preserving locally implicit time discretization for linear wave equations [7]
10	Leibold, Jan	Runge-Kutta time discretizations of nonlinear dissipative evolution equations [9]
11	Maier, Bernhard	Finite element approximations of nonlinear elastic waves [14]
12	Neher, Markus	ALORA: affine low-rank approximations [6]
13	Schrammer, Stefan	Dynamical low-rank approximations [12, 13]
14	Zerulla, Konstantin	Strichartz estimates [11]

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Programm (Stand: 04. Oktober 2019)

Vortragszeit: 45 Minuten (+15 min Diskussion)

Montag, 07. Oktober	
13:00-14:00	Anreise
15:00-18:00	Wanderung
18:30-20:00	Abendessen
20:00-21:00	Begrüßung/Tagungseröffnung

Dienstag, 08. Oktober		
08:00-09:00		Frühstück
09:00-10:00	Dörich, Benjamin	Nonlinear semigroups with applications to stability analysis [10, 16]
10:00-11:00	Leibold, Jan	Runge-Kutta time discretizations of nonlinear dissipative evolution equations [9]
11:00-11:20		Pause
11:20-12:20	Maier, Bernhard	Finite element approximations of nonlinear elastic waves [14]
12:30-14:30		Mittagessen und Pause
14:30-15:30	Köhler, Jonas	Fourth-order energy-preserving locally implicit time discretization for linear wave equations [7]
15:30-16:30	Carle, Constantin	High-order locally-implicit time integration schemes for linear ODEs [15]
16:30-17:00		Pause
17:00-17:45	Briel, Marius	Fehlerschranken für exponentielle Matrix-Splitting-Verfahren
18:30-20:00		Abendessen
20:00-21:00		Diskussion, Ersatztermin

Mittwoch, 09. Oktober	
08:00-09:00	Frühstück
09:30-18:00	Wanderung
18:30-20:00	Abendessen

Donnerstag, 10. Oktober	
08:00-09:00	Frühstück
09:00-10:00	Schrammer, Stefan Dynamical low-rank approximations [12 , 13]
10:00-11:00	Neher, Markus ALORA: affine low-rank approximations [6]
11:00-11:20	Pause
11:20-12:20	Grimm, Volker Approximation of the matrix exponential on the negative real line [5]
12:30-13:30	Mittagessen
13:30-18:00	Zur freien Verfügung
18:30-20:00	Abendessen
20:00-21:00	Diskussion, Ersatztermin

Freitag, 11. Oktober		
08:00-09:00		Frühstück
09:00-09:15		Auschecken
09:15-10:15	Zerulla, Konstantin	Strichartz estimates [11]
10:15-11:15	Freese, Jan Philip	Long time wave propagation in heterogeneous media [1, 2, 3, 4]
11:15-11:30		Pause
11:30-12:30	Baumstark, Julian	Long-Time Analysis of Nonlinearly Perturbed Wave Equations Via Modulated Fourier Expansions [8]
12:30-13:30		Mittagessen
ab 13:30		Wanderung/Abreise

Literatur

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- [15] M. N'Diaye. *On the study and development of high-order time integration schemes for odes applied to acoustic and electromagnetic wave propagation problems*. PhD thesis, Université de Pau et des pays de l'Adour, 2017. URL <https://hal.inria.fr/tel-01808393/document>.

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