CRC Workshop Time Integration of PDEs
September 28–30, 2020

Participants and Talks

	Name	Talk
1	Baumstark, Julian	High-frequency wave propagation
2	Burkhard, Selina	Lawson and other exponential integrators
3	Carle, Constantin	On component-splitting for second-order semilinear ODEs
4	Dörich, Benjamin	L^∞-error bounds for autonomous and nonautonomous wave equations
5	Dörner, Julian	Numerical integration of delay differential equations
6	Grimm, Volker	The linked cell method for short-range potentials
7	Hochbruck, Marlis	–
8	Jahnke, Tobias	–
9	Kirn, Michael	–
10	Kliesch, Tobias	Trigonometric integrators for molecular dynamics
11	Köhler, Jonas	Error and stability estimates in strong energy norms for Friedrichs' systems
12	Kumbhar, Pratik	Fourth order locally implicit time integration scheme
13	Leibold, Jan	Numerical analysis for the wave equation with kinetic boundary conditions and nonlinear damping
14	Maier, Bernhard	L^∞-error bounds for autonomous and nonautonomous wave equations
15	Neher, Markus	On a paper by D. P. Lizarralde-Bejarano etal.: A novel way to consider uncertainty in epidemiological models based on ODEs
16	Nick, Jörg	Time-dependent electromagnetic scattering from generalized impedance boundary conditions via boundary elements and convolution quadrature
17	Schrammer, Stefan	Error analyis of St-LO
18	Stein, Benny	A multi-level stochastic collocation method for Schrödinger equations with a random potential
19	Verfürth, Barbara	–
20	Zerulla, Konstantin	Error analysis of an ADI scheme for Maxwell equations in heterogeneous cuboids
21	Zimmermann, Rebekka	Relaxation Runge-Kutta methods

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Program (as of September 24, 2020)

Talk time: 25 min (+10 min for discussion)

Monday, September 28		
09:30		Arrival
10:30–11:05	Grimm, Volker	The linked cell method for short-range potentials
11:05–11:40	Kliesch,Tobias	Trigonometric integrators for molecular dynamics
11:40–12:15	Schrammer, Stefan	Error analyis of St-LO
12:30–14:00		Lunch
14:00–14:35	Zerulla, Konstantin	Error analysis of an ADI scheme for Maxwell equations in heterogeneous cuboids
14:35–15:10	Koehler, Jonas	Error and stability estimates in strong energy norms for Friedrichs' systems
15:10–15:45	Kumbhar, Pratik	Fourth order locally implicit time integration scheme
15:45–16:15		Break
16:15–16:50	Leibold, Jan	Numerical analysis for the wave equation with kinetic boundary conditions and nonlinear damping
16:50–17:25	Nick, Jörg	Time-dependent electromagnetic scattering from generalized impedance boundary conditions via boundary elements and convolution quadrature
18:30–20:00		Dinner

Tuesday, September 29		
08:00–09:00		Breakfast
09:30–09:50	Doerner, Julian	Numerical integration of delay differential equations
09:50–10:10	Burkhard, Selina	Lawson and other exponential integrators
10:10–10:45	Zimmermann, Rebekka	Relaxation Runge-Kutta methods
10:45–11:15		Break
11:15–11:50	Carle, Constantin	On component-splitting for second-order semilinear ODEs
11:50–12:25	Neher, Markus	On a paper by D. P. Lizarralde-Bejarano etal.: A novel way to consider uncertainty in epidemiological models based on ODEs
12:30–13:30		Lunch
14:00–18:00		Hiking Tour
18:30–22:00		Barbecue

Wednesday, September 30		
08:00–09:30		Breakfast, Checkout
09:30–10:05	Baumstark, Julian	High-frequency wave propagation
10:05–10:40	Stein, Benny	A multi-level stochastic collocation method for Schrödinger equations with a random potential
10:40–11:10		Break
11:10–11:35	Doerich, Benjamim	L^∞-error bounds for autonomous and nonautonomous wave equations
11:35–12:10	Maier, Bernhard	L^∞-error bounds for autonomous and nonautonomous wave equations
12:30–13:30		Lunch
13:30		Departure