

Kompaktseminar Numerik 2024
Hotel Luitpold am See, Prien am Chiemsee

October 14 – 18, 2024

Monday, October 14th

Session 1

14:30 – 14:35		<i>Opening</i>
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14:35 – 15:20	coffee break	
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Session 2 (chair: Hanke-Bourgeois)

15:20 – 15:55	Holbach	<i>Mechanical Modeling of Stress Fibers in Animal Cells</i>
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15:55 – 16:30	Braun	<i>Reconstruction of Markov Parameters from Autocorrelation Data</i>
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16:30 – 17:05	Wolf	<i>TBA</i>
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17:05 – 17:35	Schwanke	<i>Stochastic collocation finite volume method for the Euler equations of gas dynamics</i>
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18:30 – 19:30	dinner	
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Tuesday, October 15th

07:00 – 09:00	breakfast	
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09:00 – 18:30	——	<i>Free Time/lunch package</i>
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18:20 – 18:30	Measuring hat	Measuring ceremony for the new PhD students
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18:30 – 19:30	dinner	Barbecue evening
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Wednesday, October 16th

07:00 – 09:00 breakfast

Session 3 (chair: Lukáčová-Medvidňová)

09:00 – 10:10 Feireisl *On (conditional) regularity for systems of equations in fluid dynamics*

10:10 – 10:45 Schömer *Dissipative measure-valued and strong solutions to the compressible Navier-Stokes equations with potential temperature transport*

10:45 – 11:30 coffee break

Session 4 (chair: Brunk)

11:15 – 11:50 Thein *Stabilization of multi-dimensional systems of hyperbolic balance laws*

11:50 – 12:25 Anandan *Entropy conserving and stable schemes for vector-kinetic and macroscopic models*

12:30 – 14:30 lunch break

Session 5 (chair: Thomann)

15:30 – 16:15 coffee break

16:15 – 16:50 Schumann *Structure preserving approximation for the non-isothermal Cahn-Hilliard system*

16:50 – 17:25 Tang *An active flux method for the Euler equations*

18:30 – 19:30 dinner

Thursday, October 17th

07:00 – 09:00 breakfast

Session 5 (chair: Holbach)

09:00 – 09:35 Yu *Monte Carlo Method and the Isentropic Euler System*

09:35 – 10:10 Schneider *A convergence result for a stochastic collocation method for the complete Euler system*

10:10 – 10:45 Hanke-Bourgeois *Inverse acoustic scattering using just a single excitation*

10:45 – 11:30 coffee break

Session 6 (chair: Thein)

11:15 – 11:50 Weißenfels *Vorstellung Kompaktseminar SS23: Prony-Reihen approximation durch den AAA-Algorithmus*

11:50 – 12:25 Petri *Domain of Dependence Stabilization for Cut Cell Meshes: Fully-Discrete Stability Analysis of Linear Problems*

12:30 – 14:30 lunch break

Session 7 (chair: Ranocha)

15:30 – 16:15 coffee break

16:15 – 16:50 Bleecke *Asymptotic-preserving and energy-conserving methods for the BBM equation and its hyperbolic approximation*

16:50 – 17:25 Babbar *Compact Runge-Kutta Flux Reconstruction methods*

18:30 – 19:30 dinner

Friday, October 17th

07:00 – 09:00 breakfast

Session 8 (chair: Feireisl)

09:00 – 09:45	Brunk	<i>Modelling & variational discretisation for (quasi)-incompressible Maxwell-Stefan-Navier-Stokes systems</i>
09:45 – 10:30	Lukáčová-Medvidová	<i>God does not play dice, or does he?</i>
10:30 – 11:00	coffee break	

11:00 –	Travel Home	
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