

NEWSLETTER

of the Work Group Mathematical Fluid Mechanics

Newsletter no. 4 (2022)

Workshop in Capri in May

Lorenzo Pareschi und Giovanni Russo are organizing a three day conference on the island of Capri (near Naples in Italy) May 11 - 13, 2022: [High-order Time Discretization Methods for PDEs](#). Sign up quickly, if you plan to attend.



Capri

Summer school organized by Emil Wiedemann

In September there will be a summer school in Ulm: [Horizons in nonlinear PDEs](#). Topics will be contemporary theory of nonlinear PDEs, including variational, geometric, and stochastic approaches and applications.

Newsletter no. 4 (2022) (two pages)

Oberseminar series on *hyperbolic problems* kicks off to good start

Our online seminar series "[Hyperbolic equations: Structure preserving numerical methods and other topics](#)" began on Feb. 25 with a lecture by Alina Chertok, There were up to 55 persons attending, a record so far for this series.



Alina Chertok



Maria Lukacova

This week, on March 4, Maria Lukacova will lecture on a topic we also study: convergence of numerical schemes to dissipative measure valued solutions of the 2-dim. Euler equations. See her abstract [here](#).

Summer School

Horizons in non-linear PDEs

September 26–30, 2022, Ulm University

Main speakers:

- José A. Carrillo University of Oxford
- Sandra Cerrai University of Maryland – to be confirmed
- Julian Fischer Institute of Science and Technology Austria
- Alexander Mielke WIAS and Humboldt-Universität zu Berlin
- Melanie Rupflin University of Oxford
- Christian Seis Universität Münster

Organizers:
Anna Dall'Acqua, Emil Wiedemann, Rico Zacher
Institute of Applied Analysis, Faculty of Mathematics and Economics, Ulm University

Information and registration: www.uni-ulm.de/horizonsPDEs
Contact: horizonsPDEs@uni-ulm.de

New Master-thesis student

Moritz Beck will begin his Master thesis with us. His subject will be machine learning applied to hyperbolic equations.



Jayesh began to work on his PhD thesis again

Jayesh Badwaik had been working on his PhD thesis until early 2020. Without finishing, he took up a job near Aachen. Jayesh and me parted in disagreement.

Facilitated by our scientific coordinator, Jayesh and me had some reconciliatory discussions. This resulted in his employer giving him time off from his job so that he will continue to work on his thesis part time. Let us wish him good luck that it will be finished his thesis this time.

Marvin Raab submitted his Bachelor thesis

The Bachelor thesis of Marvin Raab is a nice piece of work in stochastics, [see here](#).



My calendar

See my calendar on the right, with Doumic's & Perthame's [Workshop on inverse problems in biology](#) in the 2nd week of March. Kathrin Hellmuth will also attend.

There will be **no group meetings** on March 8 and 10. Our cake meetings will not be affected.

März	
1 Di	
2 Mi	
3 Do	
4 Fr	hyp. Seminar
5 Sa	↑
6 So	
7 Mo	
8 Di	Inverse problems in biology Paris
9 Mi	
10 Do	↓
11 Fr	hyp. Seminar

Upcoming scientific conferences

Go ahead and click the links to check where you might want to participate.

- Jan. 10 - June 24, 2022: [Frontiers in kinetic theory: connecting microscopic to macroscopic scales - KineCon 2022](#), a one semester program organized at the Newton Institute at Cambridge University with 5 one week workshops in this time
- Mar. 7 - 9, 2022: [Workshop on inverse problems in biology](#), at the Poincaré Institute in Paris, co-organized by Marie Doumic
- March 7 - 11, 2022: [Perspectives on Multiphase Fluid Dynamics, Continuum Mechanics and Hyperbolic Balance Laws](#) in Luminy near Marseille, France, organized among others by Dumbser and Warnecke
- March 14 - 18, 2022: [SIAM Conference on Analysis of Partial Differential Equations online](#), organized by Sid Mishra and Emil Wiedemann
- April 4 - 8, 2022: [High order nonlinear numerical methods for evolutionary PDEs: theory and applications \(HONOM\)](#) in Braga, Portugal, organized by Raphael Loubère und Stephane Clain
- April 10 - 15, 2022: [Structure preserving discretizations](#), in Oberwolfach, organized by Bruno Després, Michael Dumbser, myself
- May 11 - 13, 2022: [High-order Time Discretization Methods for PDEs](#), on the island of Capri, Italy, organized by Lorenzo Pareschi, Giovanni Russo and others
- May 16 - 20, 2022: [The Boltzmann Equations: in the trail of Torsten Carlemann](#), near Stockholm, Sweden
- May 23 - 29, 2022: [Sharing Higher-order Advanced Research Knowledge on Finite Volume \(SHARK-FV\)](#) in Portugal, organized by Raphael Loubère und Stephane Clain
- June 12 - 18, 2022: [Summer School on "Methods and models of kinetic theory"](#) organized by Marzia Bisi (Parma) among others
- June 20 - 25: HYP2022: [18th International Conference on Hyperbolic Problems, Theory, Numerics, Applications](#) - Part 2 (formerly HYP 2020), in Malaga, Spain, organized by Carlos Pares
- June 19 - 24, 2022 ["Numerical methods for kinetic equations"](#) a **summer school** by Eric Sonnendrücker and Lukas Einkemmer in the alps in Italy
- June 27 - July 1, 2022: [Hyperbolic balance laws & beyond](#), in Magdeburg, organized by Helzel and Lukacova
- July 18 - 22, 2022: [When Kinetic Theory meets Fluid Mechanics](#), in Zürich, organized among others by Alexis Vasseur
- Aug. 22 - 26, 2022: [10th International Conference on Numerical Methods for Multi-Material Fluid Flow \(MULTIMAT 2021\)](#) in Zürich, organized by Remi Abgrall and others
- Sept. 12 - 14, 2022: [Nils Henrik Risebro birthday conference](#) in Oslo, organized among others by Fjordholm, Holden, Mishra
- Sept. 26 - 30, 2022: [Horizons in non-linear PDEs](#), a **summer school** in Ulm, organized by Emil Wiedemann and others
- Oct. 9 - 14, 2022: [Computation of hyperbolic and related PDEs: A conference in honor of Remi Abgrall](#), organized by Sid Mishra at ETH Zurich on Monte Verità (Ascona, Switzerland)