NEWSLETTER

of the Work Group Mathematical Fluid Mechanics

Newsletter no. 11 (2021)

Marc Hermann PhD defense is drawing closer

Marc Herrmann submitted his PhD thesis about four months ago. The referee reports are ready now. This means that in about a month's time, it would be possible to hold his defense. Of course it might take longer, depending on circumstances.

Happy Birthday

Recently was Marlies Pirner's birthday. Many happy returns!

26-30 July 2021, Trento, Italy NumHyp 2021

Invitation to NumHyp 2021

July 26 - 30 in Trento the bi-annual conference "Numerical methods for hyperbolic problems, <u>NumHyp2021</u>" will take place organized by Michael Dumbser. I have been invited to give a lecture there.

This conference will celebrate the 75th birthday of Tito Toro, the author of the Riemann solver book.



Concert in our house will take place on May 30

One of the concerts of the <u>Mozartfest Würzburg</u> 2021 will take place in our house. On Mai 30 members of the <u>Mahler</u> <u>Chamber Orchestra</u> will perform a so-called <u>concert in living</u> <u>rooms</u> as part of their <u>Mozart Momentum 1785/86</u> series with Leiv Ole Andsnes.



Paper jointly with Philippe Helluy accepted

I had a joint project with Philippe Helluy from Straßburg, funded by the German Science Foundation (DFG) and its French counterpart. An outcome is this paper, which now has been accepted for publication:

Hubert Baty, Florence Drui, Emmanuel Franck, Philippe Helluy, Christian Klingenberg, Lukas Tannhäuser: "A robust and efficient solver based on kinetic schemes for Magnetohydrodynamics (MHD) equations", Springer Book Series in Engineering: Current Trends in Fluid Dynamics: Modelling and Simulations, ed. Zeidan, Zhang, Goncalves Da Silva, Merker (2021)

Eva visits Oberwolfach again

May 23 - 29 there will be a seminar series in Oberwolfach on Convex Integration, with lectures among others by Laszlo Szekelyhidi. Eva Horlebein had applied to attend this. She was accepted and so she gets to visit Oberwolfach again!



Mathematisches Forschungsinstitut Oberwolfach

Oberwolfach Seminar Introduction to Convex Integration

Organizers: Daniel Faraco, Madrid Stefano Modena, Darmstadt László Székelyhidi, Leipzig

Ongoing seminar series

Here is an ongoing online seminar series, where past lectures can be viewed online: *Fifty Years of Kruzhkov Entropy Solutions*.

Upcoming scientific conferences

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

2021:

- May 17 - 21: <u>Advances and Challenges in Hyperbolic Conservation</u> <u>Laws</u>, at Brown University in honor of Dafermos, online

-May 24 - 28: <u>The Legacy of Carlo Cercignani: from Kinetic Theory to</u> <u>Turbulence Modeling</u> Milan, Italy, organized among others by Tommaso Ruggeri

- June 14 - 18: <u>Numerical Methods for Kinetic Equations 'NumKin21'</u>, online workshop organized among others by Shi Jin, register by April 30

- June 21 - 24: <u>SIAM Conference on Mathematical & Computational</u> <u>Issues in the Geosciences (GS21)</u>, in Milan, to be held online

- July 2: <u>18th International Conference on Hyperbolic Problems,</u> <u>Theory, Numerics, Applications</u> - Part 1 (formerly HYP 2020), one day online with lectures by Dafermos, Min Tang and others

- July 5 - 9: <u>THE BOLTZMANN EQUATION: IN THE TRAIL OF TORSTEN</u> <u>CARLEMAN</u>, near Stockholm, Sweden

- July 12 - 16: <u>International Conference on Spectral and Higher Order</u> <u>Methods</u> ICOSAHOM 2020, Vienna (online only), Wasilij and myself have organized a mini-symposium there

- July 26 - 30: <u>Numerical methods for hyperbolic problems,</u> <u>NumHyp2021</u> in Trento (hybrid), organized by Michael Dumbser

- Sept. 12 - 18: <u>Hirschegg Workshop On Conservation Laws</u> in Kleinwalsertal in Austria, organized by among others Gerald Warnecke

- fall: Special program on Numerical Methods for Nonlinear Hyperbolic PDEs; at SUSTech, Shenzhen, China: organized by Alex Kurganov (still in the planning stage)

2022:

- some time in spring: <u>HIGH ORDER NONLINEAR NUMERICAL</u> <u>METHODS FOR EVOLUTIONARY PDEs: THEORY AND APPLICATIONS</u> (<u>HONOM</u>) in Braga, Portugal, organized by Raphael Loubère und Stephane Clain

- end of May: <u>Sharing Higher-order Advanced Research Know-how on</u> <u>Finite Volume (SHARK-FV)</u> in Portugal, organized by Raphael Loubère und Stephane Clain (still in its planning stage)

- June 20 - 25: HYP2022:<u>18th International Conference on Hyperbolic</u> <u>Problems, Theory, Numerics, Applications</u> - Part 2 (formerly HYP 2020), in Malaga, Spain, organized by Carlos Pares

- July 18 - 22, 2022: <u>When Kinetic Theory meets Fluid Mechanics</u>, Zürich

- Sept. 5 - 9, 2022: <u>10th International Conference on Numerical</u> <u>Methods for Multi-Material Fluid Flow (MULTIMAT 2021)</u> in Zürich, organized by Remi Abgrall