NEWSLETTER

of the Work Group Mathematical Fluid Mechanics

10th newsletter

Jonas Berberich's defense on Dec. 18

On Friday, Dec. 18 at 2 pm Jonas Berberich will defend his thesis in the Zuse-Hörsaal. One can also attend the defense via Zoom.

Lena Baumann received a stipend

Lena Baumann was awarded an extension of her *Stiftung deutscher Wirtschaft* stipend until July 2021, in order to finish her Master thesis.
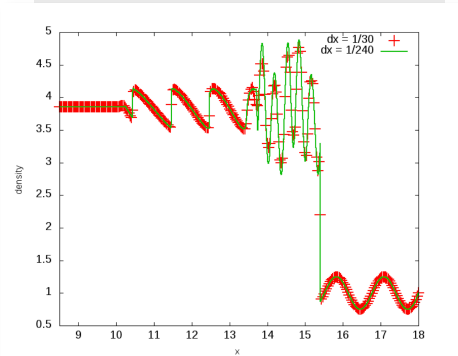
Our seminar series continues in 2021

Our seminar series "*Structure preserving methods for hyperbolic equations*" will continue next year. The topics discussed will be broader. It is now called "*Seminar on hyperbolic equations: structure preserving methods and other topics*", *see here*. The time of the seminar will change, such that Americans can listen to lectures live. It will take place on Fridays at 3 pm.

We have enlisted a nice roster of speakers, see the calendar to the right.

Seminar on *Hyperbolic Equations*
Fridays at 3 pm GMT+1

Januar	Februar	März
2021	1 Mo 5	1 Mo 9
3 So	2 Di	2 Di
4 Mo 1	3 Mi	3 Mi
5 Di	5 Fr *Cory Hauck*	4 Do
6 Mi Hl. Drei Könige	4 Do	5 Fr
7 Do	**6 Sa**	**6 Sa**
8 *Bruno Despres*	**7 So**	**7 So**
9 Sa	8 Mo 6	8 Mo 10
10 So	9 Di	9 Di
11 Mo 2	10 Mi	10 Mi
12 Di	11 Do	11 Do
13 Mi	12 Fr *Praveen*	12 Fr *??*
14 Do	**13 Sa**	**13 Sa**
15 Fr *Shi Jin*	**14 So**	**14 So**
16 Sa	15 Mo Rosenmontag 7	15 Mo 11
17 So	16 Di	16 Di
18 Mo 3	17 Mi	17 Mi
19 Di	18 Do	18 Do
20 Mi	19 Fr *F. Bouchut*	19 Fr *??*
21 Do	**20 Sa**	**20 Sa**
22 Fr *S. Gavriluk*	**21 So**	**21 So**
23 Sa	22 Mo 8	22 Mo 12
24 So	23 Di	23 Di
25 Mo 4	24 Mi	24 Mi
26 Di	25 Do	25 Do
27 Mi	26 Fr *Guermond*	26 Fr *Balsara*
28 Do	**27 Sa**	**27 Sa**
29 Fr *??*	**28 So**	**28 So** Beginn der Sommerzeit
30 Sa		29 Mo 13
31 So		30 Di
		31 Mi

The remarkable fidelity of the Active Flux method can be gauged by this solution to the Shu-Osher problem. The crosses are computed via Active Flux on a coarse grid.

For details see ***Wasilij Barsukow's paper***, recently accepted to *Journal of Scientific Computing*.

Upcoming scientific conferences in 2021

I encourage you to click the links and check, where you may want to participate.

2021:

- Jan. 11 - 15: *WCCM-ECCOMAS 2020*: World Congress on Computational Methods, online.

- March 1 - 5: Oberwolfach: *Hyperbolic Balance Laws: modeling, analysis, and numerics*, organized among others by Remi Abgrall and Maria Lukacova

- March 1 - 5, *SIAM Conference on Computational Science and Engineering*, online

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

- March 22- 26: *Kinetic Equations: From Modeling, Computation to Analysis*, in Marseille, France, organized by Shi Jin (still in its planning stage)

- March 22 - 26: *HIGH ORDER NONLINEAR NUMERICAL METHODS FOR EVOLUTIONARY PDEs: THEORY AND APPLICATIONS (HONOM)* in Braga, Portugal, organized by Raphael Loubère und Stephane Clain

- April: *Nils-Henrik Risebro's birthday conference* in Oslo, Norway (still in its planning stage)

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

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

- June 21 - 24: *SIAM Conference on Mathematical & Computational Issues in the Geosciences (GS21)*, in Milan, (still in its planning stage)

- June 28 - July 2: *18th International Conference on Hyperbolic Problems, Theory, Numerics, Applications* (HYP 2020), (still in its planning stage)

- July 5 - 9: *THE BOLTZMANN EQUATION: IN THE TRAIL OF TORSTEN CARLEMAN*, near Stockholm, Sweden

- July 12 - 16: *International Conference on Spectral and Higher Order Methods* ICOSAHOM 2020, Vienna (online only), Wasilij and myself plan to run a minisympoium there

- Sept. 6 - 10: *10th International Conference on Numerical Methods for Multi-Material Fluid Flow (MULTIMAT 2021)* in Zürich, organized by Remi Abgrall

2022:

- July 18 - 22, 2022: *When Kinetic Theory meets Fluid Mechanics*, Zürich