NEWSLETTER

of the Work Group Mathematical Fluid Mechanics

Newsletter no. 14 (2021)

Simon PhD thesis will published in *Springer Lecture Notes in Mathematics*

Springer Verlag has a well-known series of books, called *Lecture Notes in Mathematics* with a prestigious board of editors, *see here*. This series has been highly successful and has managed to be very useful for mathematicians.

Simon Markfelder's *PhD thesis* has been accepted for publication in this series, which is quite an honor.

Our Seminar on Hyperbolic Problems takes a summer break

Since Sept. 2020 we have had a weekly online seminar series *Hyperbolic equations - structure preserving methods & other topics*. It ended last Friday with a lecture by Chi-Wang Shu, attended by over 60 persons.

This seminar now takes a summer break, we'll be back in September.

Kathrin Hellmuth received a Studienstiftung PhD stipend

Kathrin Hellmuth had applied to the *Studienstiftung des deutschen Volkes* to be accepted as a PhD fellow. Part of the application was a long Zoom discussion with a mathematics professor, who had been asked by the Studienstiftung to evaluate her application. Now she has been awarded a PhD scholarship. She will take up this fellowship October 1, 2021 and relinquish her Hanns-Seidel Stiftung stipend.

In parallel she had applied to the state of Bavaria for a 1/4 time teaching position, the *Marianne-Plehn program*. This also was successful. For the duration of her Studienstiftung stipend she can flexibly choose what and when she wants to teach.
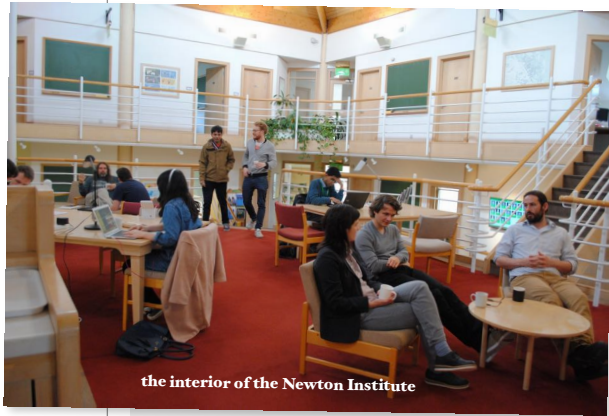
Congratulations, Kathrin!

Cercignani conference two weeks ago

The online conference *The Legacy of Carlo Cercignani: from Kinetic Theory to Turbulence Modeling* May 24 - 28 focussed mainly on theoretic aspects of kinetic equations, see the lectures *here*.

Both Marlies Pirner and Sandra Warnecke gave presentations. Their lectures aroused interest, as can be gauged by many email inquiries afterwards and an invitation to submit papers to a special issue in the journal *Fluids*.

the interior of the Newton Institute

Newton Institute, UK emphasis program on kinetic theory in 2022

The _Newton Institute_ in Cambridge, England is a research center with half year topical emphasis programs. In 2022 the topic will be _kinetic equations_.

During that period there will be week-long workshops, for example Jan. 10 - 14, 2022: _Frontiers in analysis of kinetic equations_, organized by Clément Mouhot.

Summer school in Karlsruhe on Wave Phenomena

Check out this summer school Sept. 27 - 30, _see here_.

Abstract submission for NumHyp 2021 is June 13

The abstract submission deadline for the _Numerical methods for hyperbolic problems, NumHyp2021_ conference (July 26 - 30), organized by Michael Dumbser, to be held in Trento in a hybrid manner, is **June 13.**

the conference site of NumHyp 2021

Upcoming scientific conferences

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

2021:

- June 14 - 18: _Numerical Methods for Kinetic Equations 'NumKin21'_, online workshop organized among others by Shi Jin, register by April 30

- June 21 - 24: _SIAM Conference on Mathematical & Computational Issues in the Geosciences (GS21)_, in Milan, to be held online

- July 2: _18th International Conference on Hyperbolic Problems, Theory, Numerics, Applications_ - Part 1 (formerly HYP 2020), one day online with lectures by Dafermos, Min Tang and others

- 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 have organized a mini-symposium there

- July 26 - 30: _Numerical methods for hyperbolic problems, NumHyp2021_ in Trento (hybrid), organized by Michael Dumbser

- Sept. 12 - 18: _Hirschegg Workshop On Conservation Laws_ 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:

- Jan. 10 - 14: _Workshop on tissue growth and movement_, at the Poincaré Institute in Paris, co-organized by Perthame

- Jan. 10 - 14: _Frontiers in analysis of kinetic equations_, organized by Clément Mouhot at the Newton Institute in Cambridge, UK

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

- end of 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 20 - 25: HYP2022:_18th International Conference on Hyperbolic Problems, Theory, Numerics, Applications_ - Part 2 (formerly HYP 2020), in Malaga, Spain, organized by Carlos Pares

- July 18 - 22, 2022: _When Kinetic Theory meets Fluid Mechanics_, Zürich

- Sept. 5 - 9, 2022: _10th International Conference on Numerical Methods for Multi-Material Fluid Flow (MULTIMAT 2021)_ in Zürich, organized by Remi Abgrall