

# NEWSLETTER

## of the Work Group Mathematical Fluid Mechanics

### *Newsletter no. 8 (2021)*

#### Status of my application for an Oberwolfach workshop

My application for a mini-workshop "Modeling phenomena from nature by hyperbolic partial differential equations" in Oberwolfach is being reviewed. It covers the areas that our extended work group is active in.

I will hear sometime this week if it gets approved. Oberwolfach has told me that in case it gets approved, it should take place soon, namely one week in April, possibly April 11 - 17. I'm afraid I can not being more specific now.

#### Next week: online meeting on kinetic equations

Next week Shi Jin (among others) is organizing an online meeting [\*Kinetic Equations: From Modeling, Computation to Analysis\*](#). The program will be online very soon. Registration to follow the lectures is free. Sign up now, maybe there will be a lecture interesting for you.

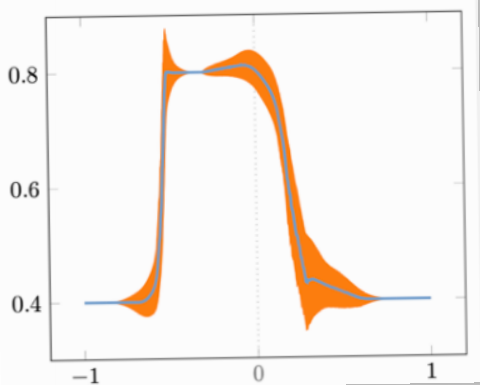


*The conference site of the above mentioned online conference, called "Centre International de Rencontres Mathématiques" in Luminy, near Marseille, (fashioned after Oberwolfach) is located near the Mediterranean coast. One can walk to this view from the conference building.*

*The Oberwolfach library building, one of the best math libraries in the world.*

## Paper has been accepted

The paper: Badwaik, J., Klingenberg, C. Risebro, N.H., Ruf, A.: "Multilevel Monte Carlo finite volume methods for random conservation laws with discontinuous flux", *Mathematical Modeling and Numerical Analysis (2021)*, [see pdf here](#), has been accepted for publication. If I am not mistaken, this had been submitted three years ago.



The solution of a scalar conservation law (solid line) and the standard deviation of a stochastic perturbation.

## Upcoming scientific conferences

I try to keep this list up-to-date. I encourage you to click the links and check, where you may want to participate.

### 2021:

- March 22- 26: [Kinetic Equations: From Modeling, Computation to Analysis](#), online workshop organized by Shi Jin, originally planned to take place in Marseille, France
- May 24 - 28: [The Legacy of Carlo Cercignani: from Kinetic Theory to Turbulence Modeling](#) Milan, Italy, organized among others by Tommaso Ruggeri
- 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 plan to run a mini-symposium there
- 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)
- fall: [Nils-Henrik Risebro's birthday conference](#) in Oslo, Norway (still in the planning stage)

### 2022:

- 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