

MATHEMATISCHES FORSCHUNGSINSTITUT OBERWOLFACH

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**Structure-Preserving Discretizations for Nonlinear Systems  
of Hyperbolic, Involution-Constrained Partial Differential  
Equations on Manifolds  
(individual research only)**

Organized by  
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6 September – 12 September 2020

ABSTRACT. Because of the pandemia, the workshop on “Structure-Preserving Discretizations for Nonlinear Systems of Hyperbolic, Involution-Constrained Partial Differential Equations on Manifolds” could not be realized in the usual format or in the new hybrid format. Only one participant (P. Helluy) was able to physically come the MFO. He worked remotely with C. Klingenberg on a structure preserving time integration for kinetic models. This allows to building efficient schemes for solving conservation laws. A preprint describing this work, with applications to MHD, can be found here: <https://hal.archives-ouvertes.fr/hal-02965967>. Meanwhile, C. Klingenberg organized a remote seminar on the topics of the workshop. From September 2020 to December 2020, 13 talks were given online by participants to the workshop and other personalities.

*Mathematics Subject Classification (2020):* 35Qxx, 65-XX, 65Mxx.

## Participants

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