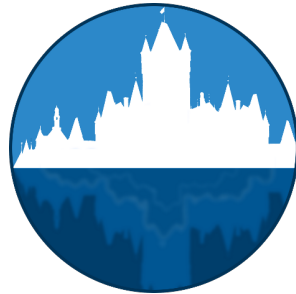


# MoST 2020

## Modeling and Simulation of Transport Phenomena



### Conference Schedule

#### Sunday, October 11

- 5.00 – 7.00 PM      Registration  
7.00 PM              Dinner

#### Monday, October 12

- 7.30 – 8.55 AM      Breakfast  
8.15 – 8.45 AM      Registration  
8.55 – 9.00 AM      Opening  
9.00 – 9.25 AM      **R. Abgrall:** *Some remarks on conservation for hyperbolic problems*  
9.25 – 9.50 AM      **V. M. Calo:** *A nonlinear weak constraint enforcement method for advection-dominated problems*  
9.50 – 10.15 AM     **P. Frolkovič:** *Semi-implicit methods for some transport problems*  
10.15 – 10.45 AM    Coffee break  
10.45 – 11.10 AM    **D. Ketcheson:** *Positivity-preserving adaptive Runge–Kutta methods*  
11.10 – 11.35 AM    **H. Ranocha:** *Physics-compatible high-order time integration methods for transport phenomena based on relaxation*  
11.35 – 12.00 PM    **M. Quezada de Luna:** *Convex limiting for high-order Runge–Kutta time discretizations of hyperbolic conservation laws*  
12.00 – 2.00 PM     Lunch  
2.00 – 2.25 PM      **A. Rupp:** *Some aspects of enriched Galerkin methods for the linear advection equation*  
2.25 – 2.50 PM      **M. Hauck:** *Enriched Galerkin method for the shallow-water equations*  
2.50 – 3.15 PM      **S. Faghih-Naini:** *A quadrature-free  $p$ -adaptive discontinuous Galerkin formulation for shallow-water equations with code generation features*  
3.15 – 3.40 PM      **V. Aizinger:** *Modeling transport in ocean using adaptive vertical meshes*  
4.00 – 6.00 PM      Vineyard hiking experience  
7.00 PM              Dinner

## Tuesday, October 13

7.30 – 9.00 AM	Breakfast
9.00 – 9.25 AM	<b>M. Quezada de Luna:</b> <i>Entropy stable and bounds preserving continuous finite element discretization of scalar hyperbolic conservation laws</i>
9.25 – 9.50 AM	<b>H. Hajduk:</b> <i>Monolithic convex limiting in high-order discontinuous Galerkin discretizations of hyperbolic conservation laws</i>
9.50 – 10.15 AM	<b>D. Kuzmin:</b> <i>Property-preserving flux and slope limiting in discontinuous Galerkin methods for hyperbolic conservation laws</i>
10.15 – 10.45 AM	Coffee break
10.45 – 11.10 AM	<b>P. Knobloch:</b> <i>On algebraically stabilized methods for convection–diffusion problems</i>
11.10 – 11.35 AM	<b>C. Lohmann:</b> <i>On the Jacobian-aware design of algebraic flux correction schemes</i>
11.35 – 12.00 PM	<b>J.-P. Bäcker:</b> <i>Analysis and numerical treatment of bulk-surface reaction–diffusion models of Gierer–Meinhardt type</i>
12.00 – 2.00 PM	Lunch
2.00 – 7.00 PM	Moselle river boat cruise and tour of Cochem Imperial Castle
7.30 PM	Dinner

## Wednesday, October 14

7.30 – 9.00 AM	Breakfast
9.00 – 9.25 AM	<b>G. R. Barrenea:</b> <i>Divergence-free finite element methods for an inviscid fluid model</i>
9.25 – 9.50 AM	<b>A. Linke:</b> <i>On the significance of pressure-robustness for locking-free incompressible flow solvers at high Reynolds numbers</i>
9.50 – 10.15 AM	<b>E. Friedmann:</b> <i>Finite Element simulation of a drug therapy model against age related macular degeneration</i>
10.15 – 10.45 AM	Coffee break
10.45 – 11.10 AM	<b>F. Frank:</b> <i>Bound-preserving flux limiting schemes for DG discretizations of conservation laws</i>
11.10 – 11.35 AM	<b>F. Ruppenthal:</b> <i>Physics-aware flux limiting for transport problems</i>
11.35 – 12.00 PM	<b>P. Kraß:</b> <i>Wavelet adaptive proper orthogonal decomposition with applications to the flapping flight of a bumblebee</i>
12.00 – 2.00 PM	Lunch

2.00 – 2.25 PM	<b>I. Timofeyev:</b> <i>Subgrid-scale parametrization of unresolved scales in forced Burgers equation using Generative Adversarial Networks (GAN)</i>
2.25 – 2.50 PM	<b>L. Saavedra:</b> <i>High-order invariant domain preserving ALE approximation of hyperbolic systems</i>
2.50 – 3.15 PM	<b>J. Valášek:</b> <i>Numerical simulation of human phonation</i>
3.15 – 3.40 PM	<b>G. Scovazzi:</b> <i>A weighted shifted boundary method for free surface flows</i>
3.40 – 4.10 PM	Coffee break
4.10 – 4.35 PM	<b>C. E. Kees:</b> <i>An incompressible two-phase flow solver via a monolithic, phase conservative level-set method</i>
4.35 – 5.00 PM	<b>S. Kang and T. Bui-Thanh:</b> <i>A scalable exponential-DG approach for nonlinear conservation laws: with application to Burger and Euler equations</i>
5.00 – 5.25 PM	<b>A. Corrigan:</b> <i>A moving discontinuous Galerkin finite element method with interface condition enforcement</i>
5.25 – 5.50 PM	<b>Y. Gorb:</b> <i>Efficient numerical treatment of high-contrast composite materials</i>
7.00 PM	Conference dinner

#### **Thursday, October 15**

7.30 – 8.30 AM	Breakfast
8.30 AM – 1.00 PM	Poster session
1.00 PM	Lunch