VARIATIONAL TIME STEPPING AND STABILIZATION SCHEMES

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In this talk, I will consider the numerical solution of time dependent linear convection-diffusion-reaction equations. Combinations of streamline-upwind Petrov--Galerkin and local projection stabilization methods in space with the higher order variational time discretization schemes will be considered. In particular, I will discuss the time discretizations by discontinuous Galerkin methods and continuous Galerkin--Petrov methods and will present a numerical comparison between them.

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