

Status update EV + DG project

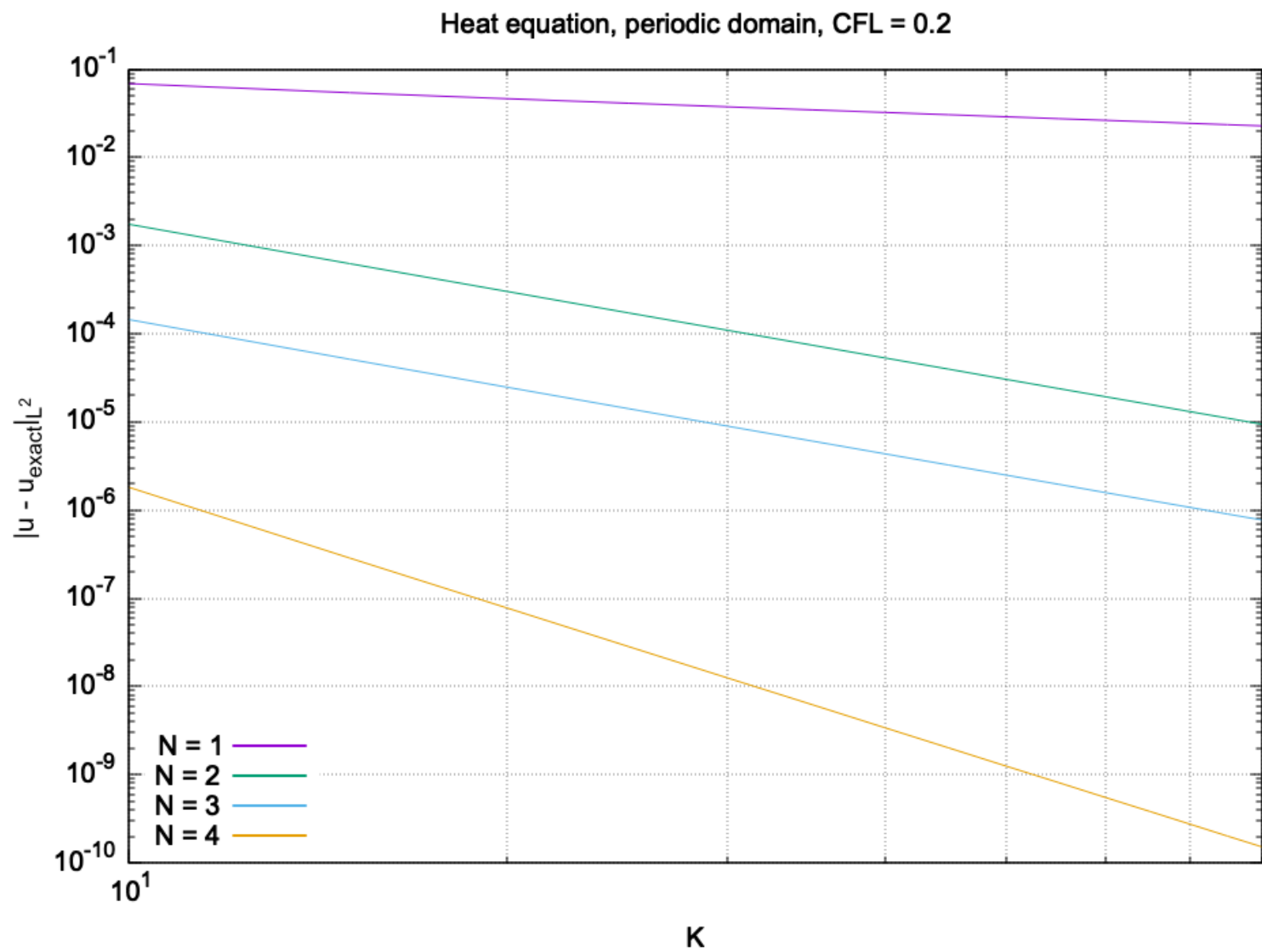
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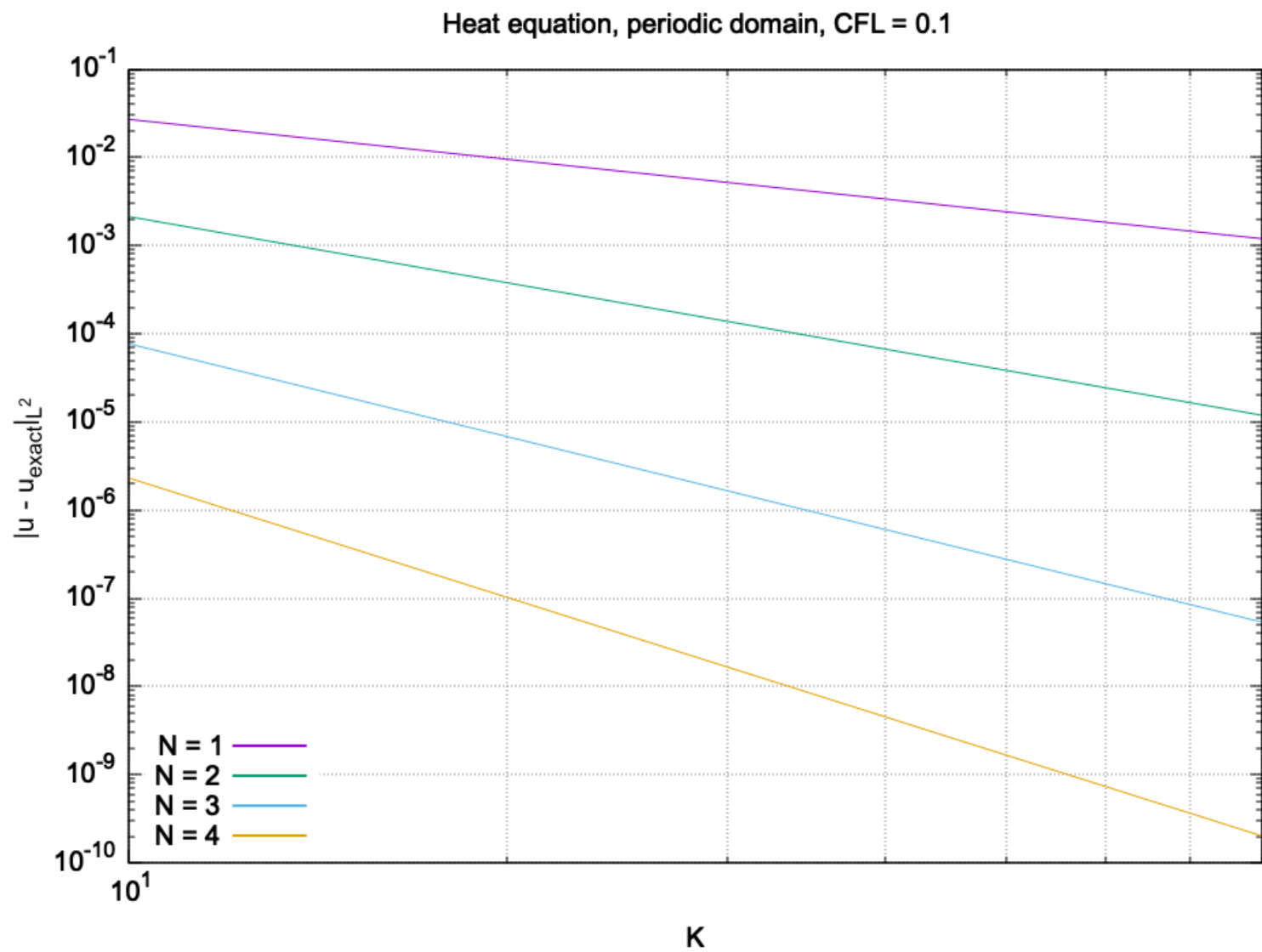
Done

- WIP - Started notes on DG + EV formulation.
- WIP - Started to prepare implementation in `bamps`.
- Revisited basic scheme for parabolic equations using heat equation as model problem.
 - Extensively discussed in Hesthaven, Warburton (2007).
 - Found inconsistencies in above reference.
 - Could clarify on issue with boundary conditions.

Convergence rate
heat equation
with central fluxes



Convergence rate
heat equation
with LDG fluxes



Planned

- Revisited EV method with better understanding of parabolic equations.
 - There might a subtletie regarding flux consistency I have overlooked before.
- Read up on altnerative formulations
 - Biswas and Kumar (2020)
 - Miller and Schmetter (2016)
 - Hagstrom et al. -- Energy DG and Galerkin Finite Differencing