

## A New Symmetric Estimate for a Discrete-time Moving Mesh

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In this talk, we generalize one part of the work of Bank and Santos [SIAM J Numer. Anal., 30 (1993), pp. 1-18] to the case of theta-weighted time discretizations. Their result is a symmetric error estimate (SEE) for backward Euler for parabolic equations on a moving mesh. Our results are given for the convective derivative formulation of Dupont-Liu [SIAM J. Numer. Anal., 40 (2002), pp. 914-927]. A particular case of the result here is that there is a SEE for the trapezoidal rule time discretization for parabolic Galerkin methods over moving meshes.