PDE-convergence of AMF-W methods for parabolic problems

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The time integration of space-discretised parabolic problems (in m spatial dimensions) on rectangular-like domains subject to Dirichlet boundary conditions is considered. The time integration is carried out by using s-stage AMF-W-methods, which are ADI (alternating direction implicit) type integrators. Optimal results of PDE-convergence (convergence in time independently of the spatial resolution) in the Euclidean norm for the case of $m = 2$ are given [**?**, **?**]. Most of this results can be extended to the case $m > 2$ [**?**]. Some numerical experiments on linear problems confirm the theory.

References

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