RUNGE-KUTTA DISCRETIZATIONS OF PARABOLIC PROBLEMS

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This project deals with the application of implicit Runge–Kutta methods to parabolic equations. The emphasis here is on the technique of energy estimates for bounding the error of such methods, as used by Ch. Lubich and A. Ostermann, Runge–Kutta approximation of quasi-linear parabolic equations, *Math. Comp.* **64** (1995), 601–627.