

## Strong Stability Preserving General Linear Methods

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We investigate the strong stability preserving (SSP) general linear methods (GLMs) with two external stages and  $s$  internal stages. Examples of SSP methods are derived of order  $p = 2$ ,  $p = 3$ , and  $p = 4$  with  $2 \leq s \leq 10$  stages, which have larger effective Courant-Friedrichs-Levy coefficients than the class of two-step Runge-Kutta (TSRK) methods introduced by Jackiewicz and Tracogna, whose SSP properties were analyzed recently by Ketcheson, Gottlieb, and MacDonald, and the class of multistep multistage methods investigated by Constantinescu and Sandu. Numerical examples illustrate that the class of SSP methods discussed in this talk achieve the expected order of accuracy and do not produce spurious oscillations when applied to discretizations of hyperbolic conservation laws, when combined with appropriate discretizations in spatial variables. (This is a joint work with Giuseppe Izzo, University of Naples).