MASTER NOTES

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I figure this can be a central document to keep track of major decisions for the paper and a bibliography.

1. Methods

The methods we want to test.

(1) 2nd order IMEX midpoint [1]

0	0	0
1/2	1/2	0
	0	1

0	0	0
1/2	0	1/2
	0	1

(2) SSP3(3,3,2) with $\gamma = 1 - \frac{1}{\sqrt{2}}$.

0	0	0	0
1	1	0	0
1/2	1/4	1/4	0
	1/6	1/6	2/3

γ	γ	0	0
1-γ	1-2γ	γ	0
1/2	1/2 - γ	0	γ
	1/6	1/6	2/3

References

[1] Lorenzo Pareschi and Giovanni Russo. High order asymptotically strong-stability-preserving methods for hyperbolic systems with stiff relaxation. In *Hyperbolic Problems: Theory, Numerics, Applications*, pages 241–251. Springer, 2003.