

***Positivity and SSP by implicit numerical methods for ODEs and DAEs***

**Zoltán Horváth** (Széchenyi István University), Volker Mehrmann

Theoretical settings and implementations of time stepping methods for ODEs that guarantee the positivity and/or SSP property have required the same property for the Explicit Euler method. In this talk we shall present theoretical and experimental results on cases when, instead of that for the Explicit Euler method, condition on the Implicit Euler method is applied for implicit numerical methods. Also, we shall show how the presented results apply for DAEs.