

Cosimulation Convergence Criteria for Hessenberg DAEs of Index 2

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The network approach to the modelling of complex technical systems results frequently in a set of coupled differential-algebraic equations (DAEs). Dynamic iteration methods, also referred to as cosimulation or waveform relaxation methods, are well-established since they allow for dedicated solvers and discretisation grids for the involved subsystems. Coupled DAE-systems may suffer from instability during a dynamic iteration. We present a convergence criterion for systems involving Hessenberg-DAEs of index 2.