



CSC Seminar

SPEAKER

Prof. Dr. Paul Van Dooren

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TITLE

Optimal robustness of port-Hamiltonian systems

ABSTRACT

We construct optimally robust port-Hamiltonian realizations of a given rational transfer function that represents a passive system. We show that the realization with a maximal passivity radius is a normalized port-Hamiltonian one. Its computation is linked to a particular solution of a linear matrix inequality that defines passivity of the transfer function, and we provide an algorithm to construct this optimal solution.

joint work with Volker Mehrmann (TU Berlin, Germany)

Tuesday, August 13, 2019 at 3 pm
Seminar room Prigogine V0.05-2+3