

Composition of Dirac Structures for Infinite-Dimensional Systems

A. Sandovici

joint work with O. Iftime

Dirac structures are used to formalize the power-conserving interconnection structure of physical systems. For finite-dimensional systems it is known that the composition or interconnection is again a Dirac structure. For infinite-dimensional systems this is not always the case. Necessary and sufficient conditions for preserving the Dirac structure under the composition are provided.