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# Differential dissipativity for port-Hamiltonian system

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## Résumé

The notion of differential passivity is based on the so-called prolonged (or extended) system dynamics, obtained by lifting the system to the tangent bundle of the underlying manifold. In this short work, we present the conditions to exploit the differential Hamiltonian function as a differential storage function to define the differential passivity property for port-Hamiltonian systems.

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