

# A non-symmetric space-time coupling of finite and boundary element methods for a parabolic-elliptic interface problem

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We consider the interface problem of the heat equation in a bounded domain and of the Laplace equation in the exterior domain. We present a coupling of a space-time formulation of the heat equation and the weakly singular integral equation of the Laplace equation and consider a conforming space-time discretization. We discuss an analysis of the proposed space-time formulation, an implementation of the related FEM-BEM coupling, and numerical tests.

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