On the Non-symmetric FEM BEM Coupling for the Stokes Problem

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In recent years, there has been substantial progress on the stability analysis of discrete systems of the so-called non-symmetric coupling of FEM and BEM for Lipschitz domains. In this setting a finite element discretization is used for one subdomain while the weakly singular boundary integral equation is considered for a second subdomain. This approach leads to non-symmetric discrete linear systems. In this talk, we will discuss the non-symmetric coupling for the Stokes problem, which includes additional challenges, and we will present related numerical examples.

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