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Domain decomposition for coupled Stokes and Darcy flows with floating Stokes domains CHANGQING WANG, IVAN YOTOV, University of Pittsburgh — A non-overlapping domain decomposition method is presented to solve a coupled Stokes-Darcy flow problem in parallel by partitioning the computational domain into multiple subdomains. Specifically, in the case where floating Stokes subdomain occurs, an approach based on the FETI methods is introduced and tested.

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