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Incompressible flow around small obstacles MILTON LOPES FILHO, UNICAMP, UNICAMP FLUIDS GROUP COLLABORATION — In recent years, the author and his research team have obtained several results concerning the limiting behavior of incompressible flow around small obstacles, both in the inviscid and viscous cases. These results showcase the difficulties and mathematical issues surrounding the description of fluid-solid interaction at large Reynolds number. In this talk, we will present the main results obtained, focusing especially of the joint small viscosity/small obstacle limit, see [1], ongoing research on homogenization, and open problems.

[1] Iftimie, D., Lopes Filho, M.C. and Nussenzveig Lopes, H.J., *Incompressible flow around a small obstacle and the vanishing viscosity limit*, Commun. Math. Phys. V. 287 (2009), 99-115

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