

LadHyX Seminar – June 22, 10:45 – LadHyX library

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**Modelling small-scale swimming in confined and complex environments**

Biological and artificial swimmers often move in confined environments, where boundaries shape their dynamics and promote accumulation and self-organisation. We discuss some approaches to build minimal models for systems of single microswimmers or suspensions, and highlight the particular challenges posed by non-Newtonian fluids, where local phenomena can become dominant, and strong confinement. Our results can explain recent experimental findings on collective dynamics of bacteria and contamination dynamics.