Single and multiple swimmers using penalization in deforming geometries

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SUMMARY

We present a vortex particle method coupled with a penalization technique to simulate single and multiple swimmers in an incompressible, viscous flow in two and three dimensions. The pro- posed algorithm can handle arbitrarily deforming bodies and their corresponding non-divergence free deformation velocity fields.

Keywords: penalization method, porous thin layer, viscous fluid, convection-diffusion equations

AMS Classification:

References

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