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**Título:** On The Steady Motion Of a Coupled System Solid-Liquid

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**Sinopsis**

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The authors study the unconstrained (free) motion of an elastic solid  $B$  in a Navier-Stokes liquid  $L$  occupying the whole space outside  $B$ , under the assumption that a constant body force  $b$  is acting on  $B$ . More specifically, the authors are interested in the steady motion of the coupled system  $\{B, L\}$ , which means that there exists a frame with respect to which the relevant governing equations possess a time-independent solution. The authors prove the existence of such a frame, provided some smallness restrictions are imposed on the physical parameters, and the reference configuration of  $B$  satisfies suitable geometric properties.

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