## Existence of pullback attractors in H and $V_p$ for the Ladyzhenskaya model of incompressible viscous fluid

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We establish a result of existence of pullback attractors in H and  $V_p$  for the Ladyzhenskaya model of incompressible viscous fluid in a domain  $\Omega \subset \mathbb{R}^n$ ,  $n \in \{2, 3\}$ . The motion of incompressible, viscous fluids in  $\Omega$ , characterized by the velocity field  $u = (u_1, ..., u_n)$  and the pressure  $\pi$ , is governed by the system of n + 1equations

$$\begin{cases} \frac{\partial u}{\partial t} - div_x S(Du) + div_x (u \otimes u) + \nabla_x \pi = f(t) & in (\tau, +\infty) \times \Omega, \\ div_x u = 0 & in (\tau, +\infty) \times \Omega, \\ u(\tau, x) = u_\tau(x), & x \in \Omega, \\ u = 0 & on (\tau, +\infty) \times \partial\Omega, \end{cases}$$
(0.1)

where the operator S is a potential.

This is a joint work with Pedro Marin-Rubio (Universidad de Sevilla, Spain) and Gabriela Planas (Universidad de Campinas, Brazil).