

# **2D Stochastic Navier-Stokes equations with a time-periodic forcing term**

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We study the long time behavior of the solution  $X(t, s, x)$  of a 2D-Navier-Stokes equation subjected to a periodic time dependent forcing term. We prove in particular that as  $t \rightarrow \infty$ ,  $\mathbb{E}[\varphi(X(t, s, x))]$  approaches a periodic orbit independently of  $s$  and  $x$  for any continuous and bounded real function  $\varphi$ . (Paper in collaborationw with A.Debussche)