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"Concentration phenomena for singularly perturbed elliptic PDEs"

ABSTRACT:

We study new concentration phenomena for some singularly perturbed elliptic equations arisings in physics or chemistry/biology. As the singular perturbation vanishes, solutions typically concentrate at some sets of the domain. While there is a broad literature regarding concentration at points, only recently concentration at sets of higher dimensions has been considered. We discuss some recents results and new perspectives in this direction.