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# THIN DOMAINS WITH OSCILLATORY BOUNDARIES

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We will present some results on the behavior of the Laplace operator with Neumann boundary condition in thin domains having boundaries with an oscillatory behavior. We will obtain the homogenized limit in some relevant cases including the periodic and locally periodic situation. Moreover, we will include recent results dealing with some higher dimensional thin domains with a quasiperiodic oscillatory behavior of the boundaries.

Based on joint work with Manuel Villanueva-Pesqueira.

**Keywords:** thin domain, oscillatory boundaries, homogenization.