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HOMOGENIZATION OF A NON–PERIODIC OSCILLATING BOUNDARY VIA PERIODIC UNFOLDING

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Abstract. This paper deals with the homogenization of an elliptic model problem in a two-dimensional domain with non-periodic oscillating boundary by the method of periodic unfolding. For the non-periodic oscillations, a modulated unfolding is used. The L^2 convergence of the solutions and their fluxes are shown, under natural hypotheses on the domain.

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