

**Homogenization for elliptic operators in a strip
perforated along a curve**

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We consider an elliptic operator in a planar infinite strip perforated by small holes along a curve: we impose mixed classical boundary conditions (Dirichlet, Neumann and Robin) on the holes, assuming that the perforation is non-periodic and satisfies rather weak assumptions.

We describe the homogenized operators, establish the norm resolvent convergence of the perturbed resolvents to the homogenized one, prove the estimates for the rate of convergence and study the convergence of the spectrum.

Based on a joint work with D. Borisov and T. Durante