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SPECTRAL ESTIMATES FOR DIRICHLET LAPLACIANS ON PERTURBED TWISTED TUBES

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Abstract. We investigate Dirichlet Laplacian in a straight twisted tube of a non-circular cross section, in particular, its discrete spectrum coming from a local slowdown of the twist. We prove a Lieb-Thirring-type estimate for the spectral moments and present two examples illustrating how the bound depends on the tube cross section.

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