Ground state asymptotics for a singularly perturbed second order elliptic operator with oscillating coefficients

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The talk will focus on the Dirichlet spectral problem in a smooth bounded domain for a singularly perturbed second order elliptic operator with locally periodic rapidly oscillating coefficients. We will study the limit behaviour of the first eigenvalue, the logarithmic asymptotics of the first eigenfunction and, for convection-diffusdion operators, the second term of the asymptotics.