

# Order-sharp norm-resolvent estimates and dispersive properties of resonant periodic thin structures

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## **Abstract**

I will present a new approach to the analysis of PDEs on “thin structures”, via an explicit asymptotic analysis of Dirichlet-to-Neumann operators, and discuss its applications to the case of periodic thin structures. In particular, I will announce recent results on the norm-resolvent asymptotics for the associated operator families. An essential feature of the new technique is that it relates homogenisation limits for periodic thin structures to a class of time-dispersive media.