"Boundary singular solutions associated with connecting thin tubes"

Dr. Susanna Terracini
(Università di Milano Bicocca)

Consider two domains connected by a thin tube so that the mass of a given eigenfunction (linear or nonlinear) concentrates in only one of the two domains. The restriction on the other domain develops a singularity at the junction of the tube, as the section of the channel shrinks to zero. The asymptotics for this type of solutions can be precisely described.