

Transmission Eigenvalues for Non-regular Cases

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We prove the existence of infinitely many interior transmission eigenvalues in the case when the perturbation of the index of refraction may have singularity or degeneration on the boundary of its support or in some points inside. This singularity or degeneration is measured in terms of the distance to the boundary or to these points. We also give a lower bound for the counting function. This is a joint work with John Sylvester.