

Inverse transport with angularly averaged measurements: recent results

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Abstract

Many practical situations require that one reconstruct the constitutive parameters of a transport equation from angularly averaged measurements. Such measurements are dubbed diffusion-type measurements because they roughly correspond to the availability of Cauchy data (the Dirichlet to Neumann map) for diffusion equations. Although the reconstruction of diffusion coefficients from Cauchy data is well established theoretically, very few theoretical results exist on the reconstruction of scattering coefficients in a transport equation from diffusion-type measurements. I will present recent results obtained in collaboration with Ian Langmore and François Monard.