

# Reconstruction of the Diffusion Operator from Nodal Data

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In this paper, we deal with the inverse problem of reconstructing the diffusion equation on a finite interval. We prove that a dense subset of nodal points uniquely determine the boundary conditions and the coefficients of the diffusion equation. We also provide constructive procedure for them.

*Key words:* Diffusion Operator; Inverse Nodal Problem; Reconstruction Formula.

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