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Dorina Mitrea* (mitread@missouri.edu), University of Missouri, Department of Mathematics, Columbia, MO 65211. *Poisson integral representation formulas for elliptic systems in domains with Ahlfors regular boundaries.*

The Poisson integral representation formula is a basic result in the theory of elliptic PDE's, which allows one to express the solution of the Dirichlet problem for a given elliptic operator in terms of the boundary datum, via an integral involving the Poisson kernel associated with the domain in question.

In this talk I will present a very general result of this flavor, valid for weakly elliptic second-order systems L and domains with Ahlfors regular boundaries satisfying an additional nontangential path-accessibility. The Poisson kernel is written as the conormal derivative of the Green function for the transposed system L^\top . (Received February 19, 2018)