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**A CHARACTERIZATION OF THE CALDERÓN PROJECTOR
FOR THE BIHARMONIC EQUATION**

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In this lecture, we present some recent results on a new characterization of the Calderón projector for the biharmonic equation and its application of boundary integral equation methods to the fundamental problems of the biharmonic equation. Specifically, we will consider the solutions of the Dirichlet, Neumann and mixed problems by the integral equations of the first kind. We are particularly interested in the direct integral formulations of problems. As will be seen, a simplified and systematic notation may be introduced for the corresponding boundary integral operators in the associated Calderón projector so that their properties can be identified as easily as those in the case for the Laplacian. Emphasis will be placed upon the variational formulations and the mathematical foundations of the corresponding integral equation methods.

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