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**Irina Mitrea\***, 442 Wachman Hall, Department of Mathematics, Temple University, 1805 N. Broad Street, Philadelphia, PA 19122, and **Marius Mitrea** and **Michael Taylor**. *Szegő Projections and Kerzman-Stein Formulas.*

In this talk I will address the question whether the orthogonal projection  $P$  of the Hilbert space  $L^2(\Sigma)$  onto the closed subspace  $\mathcal{H}_+(\Sigma)$  (or  $\mathcal{H}_-(\Sigma)$ ) has a bounded extension as an operator on  $L^p(\Sigma)$  with  $p \neq 2$ . This is a rather delicate issue, which interfaces tightly with the geometric character of  $\Sigma$ . The main tools are a new generation of commutator estimates and a far-reaching extension of the so-called Kerzman-Stein formula from Complex Analysis. (Received February 10, 2014)