Meeting: 1005, Newark, Delaware, SS 2A, Special Session on Singular Analysis and Spectral Theory of Partial Differential Equations

1005-58-118 Juan B. Gil (jgil@psu.edu), Penn State Altoona, 3000 Ivyside Park, Altoona, PA 16601-3760, Thomas Krainer* (krainer@math.uni-potsdam.de), Institut für Mathematik, Universität Potsdam, Postfach 60 15 53, D-14415 Potsdam, Germany, and Gerardo A. Mendoza (gmendoza@math.temple.edu), Department of Mathematics, Temple University, Philadelphia, PA 19122. Resolvents of elliptic cone operators.

We study properties of the spectrum and the resolvent of closed extensions of general elliptic cone operators. In particular, we prove the existence of sectors of minimal growth under natural ellipticity conditions on the principal symbols of the operator. Special attention is devoted to the clarification of the analytic structure of the resolvent.

The results presented are accessible at arXiv.org under math.AP/0410178 and math.AP/0410176. (Received February 03, 2005)