

## **Spectra and resolvents of elliptic cone operators**

In this talk I will give an account of joint work with T. Krainer and G. Mendoza regarding the spectral theory of elliptic cone operators. In particular, we will discuss the structure and asymptotic behavior of their resolvents.

Cone operators arise naturally in the study of differential equations on a manifold with conical singularities –simplest (but fundamental) case of an incomplete Riemannian manifold. Our approach uses some of the pseudodifferential techniques introduced by Schulze in the context of edge singularities, combined with a systematic study of Grassmannians associated to the closed extensions of the operators.