

# PSEUDO-DIFFERENTIAL CALCULI ON FILTERED MANIFOLDS

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ABSTRACT. In this talk, we will discuss the natural construction of a pseudo-differential calculus on filtered manifolds with symbols given in terms of the representations of the nilpotentization. Notably, we will see that the sub-calculus corresponding to poly-homogeneous symbols coincides with the calculus obtained from the groupoid approach.

I will also present applications of this calculus for semiclassical and functional analysis of sub-elliptic operators.

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