

# First Joint Meeting Brazil Italy of Mathematics

## Special Session: Elliptic PDEs

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**Title:** Homogeneous solutions of fully nonlinear elliptic equations in planar cones and applications

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**Abstract:** We present recent results about explicit homogeneous solutions of homogeneous extremal Pucci's equations posed in planar cones. By applying comparison arguments with these explicit barrier functions, we obtain several results about solutions of general fully nonlinear uniformly elliptic equations, from monotonicity properties of solutions, to Liouville type non-existence results and behavior of possible nodal eigenfunctions.