# Direct exoplanet imaging with small-angle Vortex coronagraphs

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**Abstract**

Vortex coronagraphs are among the most promising solutions to perform high contrast imaging at small angular separations from bright stars. They enhance the dynamic range at very small inner working angle (down to the diffraction limit of the telescope) and provide a clear 360 degree discovery space for high-contrast direct imaging of exoplanets. In this talk, we will report on the first scientific results obtained with Vortex coronagraphs installed on 10-m class telescopes (i.e., the VLT and the LBT) and on the recent installation of one Vortex at Keck. We will describe the in-lab and on-sky performance of the Vortex, and describe the lessons learned after a few years of operation. Finally, we will discuss the prospects of our vortices for future extremely large telescopes and space missions.

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