

The vortex coronagraph

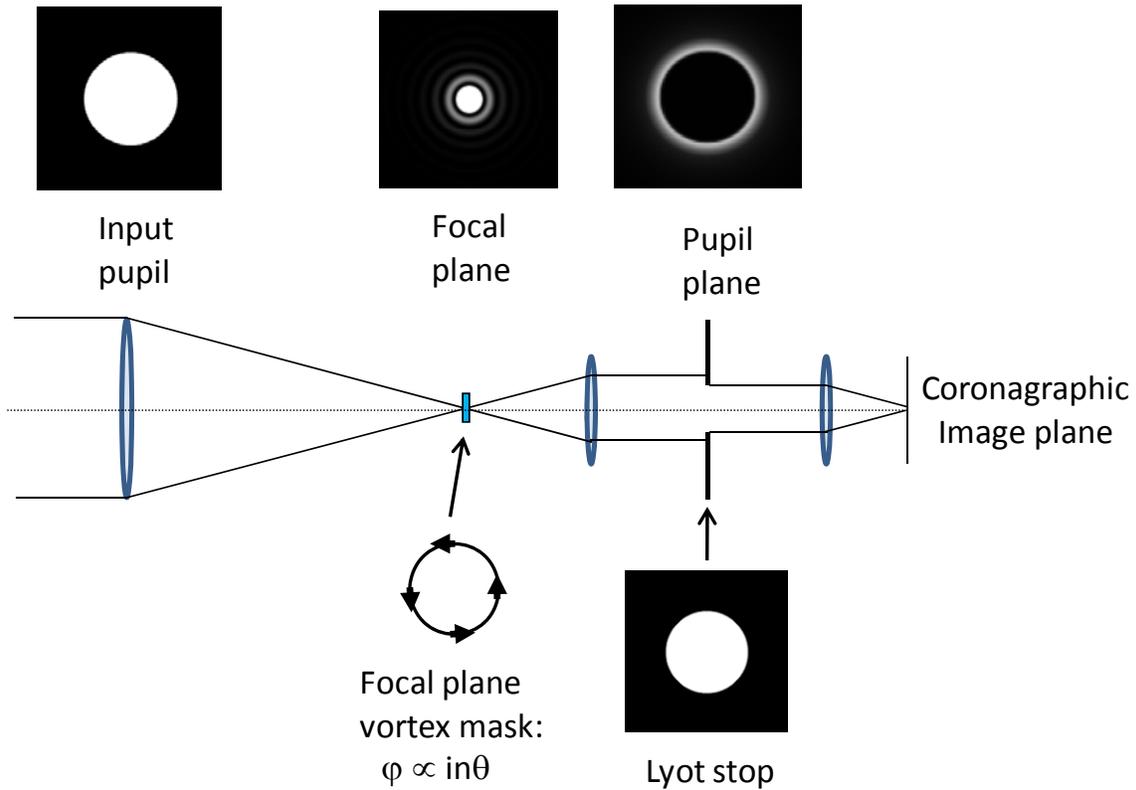


Figure S1: Conceptual layout of the vector vortex coronagraph. The light in the input pupil is focused onto a focal-plane coronagraphic phase mask, for which the output phase, ϕ , is linearly proportional to the azimuthal angle, θ . For these observations, the constant of proportionality, n , is equal to 2. In the vector vortex coronagraph^{7,9}, the azimuthal phase ramp is induced by passage through a rotationally symmetric half-wave plate. After the vortex mask, the beam is recollimated, and in a subsequent pupil plane the starlight lies entirely outside the image of the original pupil (for a perfect wavefront), allowing the starlight to be rejected with an opaque, slightly undersized pupil stop (the Lyot stop).