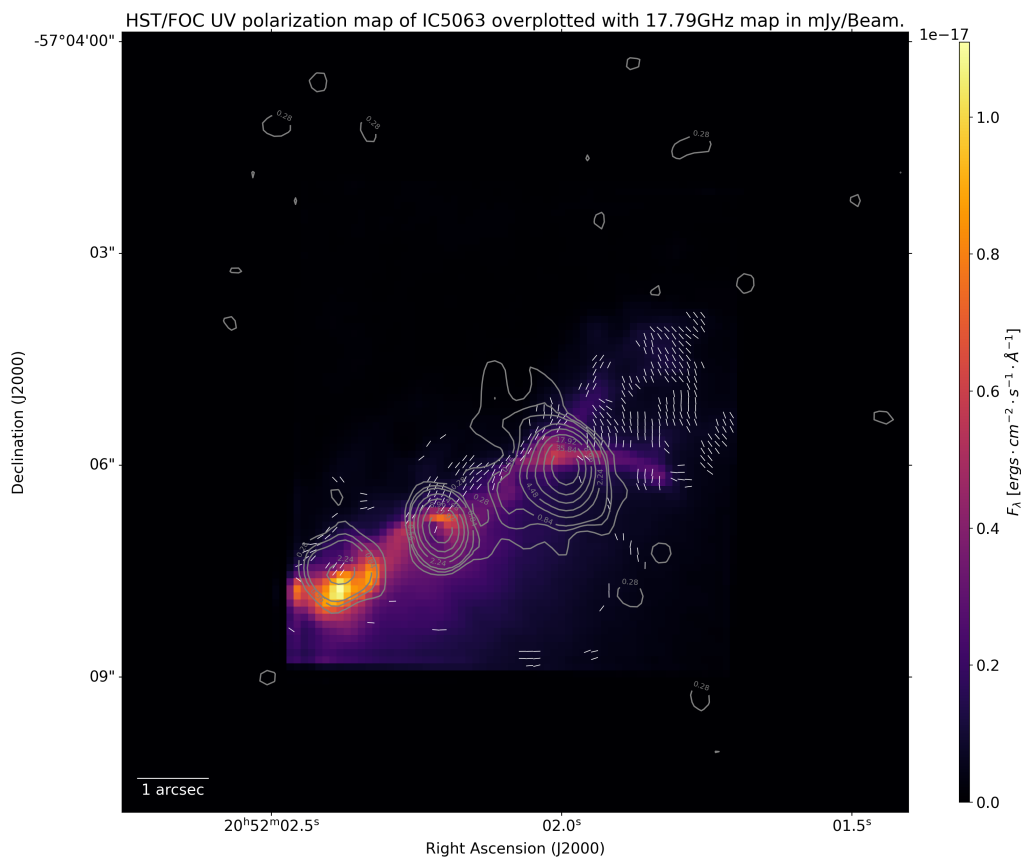


The dusty environment of IC 5063 seen under the (polarized) magnifying glass of the HST /FOC instrument.

M. Thibault BARNOUIN^{*†}, Dr. Frédéric MARIN[†]

IC 5063 is a nearby radio-loud active galactic nucleus (AGN) that is characterized by warm IRAS colors, revealing that the AGN is enshrouded in hot and dense dusty environment. Radio and infrared images have revealed that the jets and outflows from the AGN core are colliding with the interstellar medium (ISM), photo-ionizing the dust grains and creating clumps and filaments in the halo. IC 5063 is thus a perfect laboratory to examine the processes in the ISM tied to AGN accretion and feedback. To achieve so, we took the full advantage of the photometric and polarimetric capabilities of the Faint Object Camera – legacy instrument of HST until 2001 – to study IC 5063 in the ultraviolet band. We have resurrected forgotten observations of this AGN that have never been exploited since their acquisition in 1998 and put our results in the light of the most recent discoveries for this object. In particular, ultraviolet polarimetry allows us to reveal the contours of some major dust complexes surrounding the central engine, highlighting the interaction zones between the ISM and the AGN with a precision inferior to 0.1". Put in the context of multi-wavelength polarimetric studies, we are also able to give hints on the dust composition and the intensity of the hundreds of parsec scales magnetic fields that align the ISM dust grains around IC 5063.



^{*}thibault.barnouin@gmail.com

[†]Observatoire Astronomique de Strasbourg