1) VLT/MUSE proposal

Title: Extreme obscuration of Compton-Thick AGN: Contribution of large scale gas and dust

Abstract:
The traditional view of extreme obscuration of active galactic nuclei (AGN) via a compact (sub-pc) torus surrounding the active black hole has recently been called into question. Recent work shows evidence for larger scale obscuration which could act instead of, or be comparable to, small scale obscuration. To better constrain the role and structures of gas and dust, we propose MUSE observations of two nearby Compton-thick AGN, NGC424 & NGC7582, with preliminary data indicating extended narrow-line regions, but selected to have distinct host galaxy obscuration from the Silicate 9.7 m absorption feature. Together with ancillary data, we will achieve the most complete view of the nucleus-host galaxy relations in these two Compton-thick AGNs. Further comparing with MUSE observations from SV programs, we will confirm details of an emerging picture where AGN fuelling and obscuration are intricately linked with the evolutionary stage of their host galaxies.