

Supermassive black hole - starburst - galaxy connection at low and high redshifts

- Quasar/ULIRG Evolution STudy (QUEST) and follow-up projects: summary (2012) and a selection of papers
- Deep Wide-Field Surveys of Emission-Line Galaxies with MMTF & NEWFIRM

Impact of feedback on galaxy evolution and the intracluster medium

- ARAA review on galactic winds (2005)
- Discovery of warm molecular gas in the wind of M82 (2009) & Other objects (2013)
- Discovery of intertwined filaments in cluster Abell 1795 (2009) & Other objects (2010) & (2011)
- Discovery of a powerful wide-angle neutral outflow in quasar Mrk 231 (2011) & Other objects (2013)
- Discovery of a massive cooling flow in the core of a highly luminous galaxy cluster (2012) & (2013) & (2014)
- ALMA Observations of the Starburst-Driven Molecular Wind in NGC 253 (2013)
- Fast Molecular Outflows in Nearby Mergers: Evidence for Quasar Feedback from Hershel (2013)
- Spatially Resolved Molecular Outflow in a Buried QSO (2013)
- Deep Spectral Mapping of the Hot Circumgalactic Nebula around the Quasar Mrk 231 (2014)

- Wind from the Black-Hole Accretion Disk Driving a Molecular Outflow in an Active Galaxy (2015). Recent NuSTAR observations seem to confirm the existence of this nuclear wind. The original 2015 discovery paper was awarded the 2017 Aspen Institute Italia Award.

- Connecting the Large-Scale Molecular Outflow with the Black-Hole Accretion Disk Wind with ALMA (2017)
- Ubiquitous kpc-scale Outflows in Type 1 Quasars and Correlations with Black Hole Properties (2017)
- JWST Director's Discretionary Early Release Science Program (2017)

Instrumentation for ground-based optical and infrared telescopes and beyond

- MMTF: Maryland Magellan Tunable Filter (Baade 6.5m)
- NEWFIRM: NOAO Extremely Wide-Field Infrared Mosaic (NOAO 4m)
- RIMAS: Rapid infrared IMAger Spectrometer (DCT 4.3m)
- MOHSIS: Maryland OH Suppression Integral Field System (Astrophotonics, DCT 4.3m)
- KPS: Keck Photonic Spectrometer (Astrophotonics, visitor instrument) [press release]
- Astrophotonics: general