



MSc Thesis & BSc projects:

Orbital Tomography of organic semiconductor films

In the past few years the technique of orbital tomography has been developed and its potential power has been demonstrated; we have shown that it can determine molecular geometries, gain insight into the nature of the surface chemical bond, unambiguously determine the orbital energy ordering in molecular homo- and heterostructures and even image orbitals in real space.

The global aim of this BSc. or MSc. project is to help develop and consolidate orbital tomography and provide a basis whereby it could be even more generally applied.

The BSc. or MSc. student will work with laboratory and/or synchrotron based UHV systems on collaborative projects with the theory group of Peter Puschnig (KFU) and Forschung Zentrum Jülich (GER) through the FWF-funded project concerned with the same topic. Specific projects, molecules and experimental techniques will be decided upon discussion with the candidate.

The possibility of 6-month research grant of 440 € / month is given.

Contact michael.ramsey@uni-graz.at for further details.

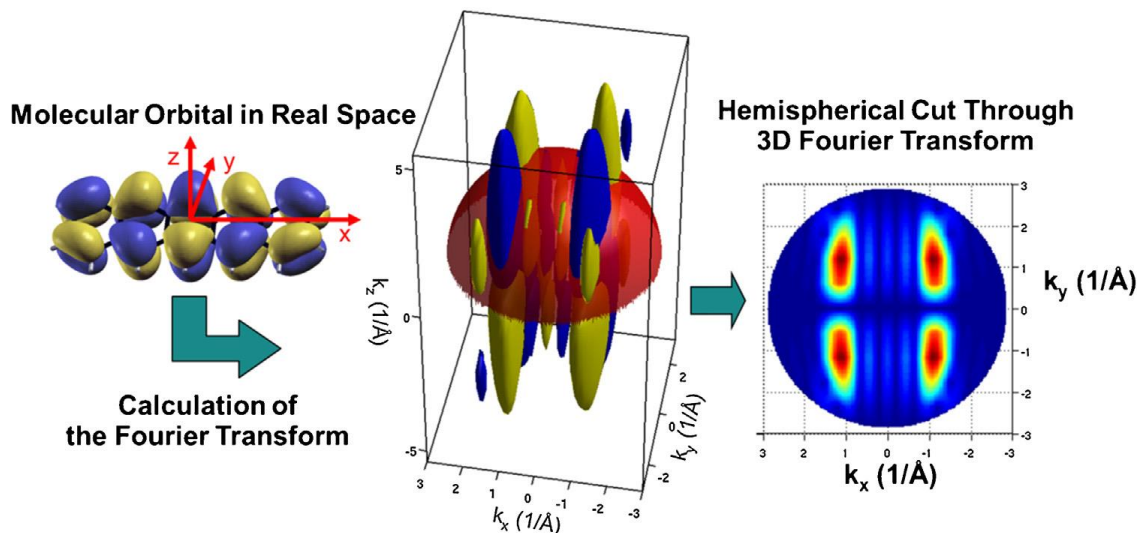


Figure: schematic procedure of transforming a DFT molecular orbital calculation into a measurable UPS momentum map;