



Contribution ID: 23

Type: **Invited talk**

## **Hot, cool, dark and bright: the various shades of dust around AGN**

*Friday 15 June 2018 09:45 (35 minutes)*

Dust accreting onto supermassive black holes has been a cornerstone of AGN unification as it provides the angle dependent obscuration required to explain the various AGN types by a pure view angle effect. However, advancements in angular resolution over the last decade have allowed us to resolve the dust-emitting region for the first time. It is now clear that dust plays a fundamental role in dynamically shaping the immediate environment of the black holes. At the same time, the hard AGN radiation significantly processes the dust, altering its size distribution and chemical composition. In this talk, I will present recent results from high angular resolution observation, including infrared (IR) interferometry. A particular emphasis will be the physical constraints of the composition and distribution of dust, specifically the predominance of large graphite grains in shaping the IR emission. I will also show new results on PAH emission from within 100 pc of an AGN, provoking thoughts on its common use as a star-formation tracer.

### **Consider for a poster?**

**Author:** Dr HÖNIG, Sebastian (University of Southampton)

**Presenter:** Dr HÖNIG, Sebastian (University of Southampton)

**Session Classification:** Dust in AGN

**Track Classification:** Dust as a tool