

# Acknowledgement - The Universe Explored by Herschel 2920162



the universe explored by herchel  
15-18 october 2013

European Space Agency

## The Universe Explored by *Herschel*

**An international conference dedicated to presenting, discussing, and taking stock of the scientific breakthroughs from the Herschel Space Observatory to date, and with a view towards the future**

**15-18 October 2013  
ESA/ESTEC, Noordwijk (The Netherlands)**

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### Paper Title

Dusty Feedback from Massive Black holes in two Elliptical Galaxies

### Abstract text

Far-infrared dust emission from elliptical galaxies informs us about galaxy mergers, feedback energy outbursts from supermassive black holes and the age of galactic stars. We report on the role of AGN feedback observationally by looking for its signatures in elliptical galaxies at recent epochs in the nearby universe. We present Herschel observations of two elliptical galaxies with strong and spatially extended FIR emission from colder grains 5-10 kpc distant from the galaxy cores. Extended excess cold dust emission is interpreted as evidence of recent feedback-generated AGN energy outbursts in these galaxies, visible only in the FIR, from buoyant gaseous outflows from the galaxy cores.

### Topic

01 1 - Galaxy Formation & Evolution

### Presentation Type suggested by Author

Oral

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