

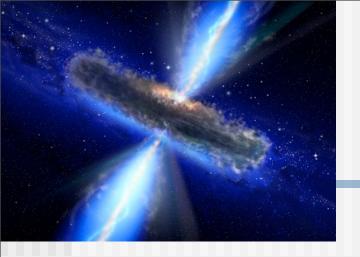
Exchange Visit: Short Term Scientific Missions (STSMs)

Testing the Black Hole Fundamental plane with NLSy1?

Applicant: Dr. Francesca Panessa (IASF-Rome, INAF, Italy)

Host: Dr. Piergiorgio Casella (University of Southampton, UK)

University of Southampton, UK 15-28 February 2011



Super-unification schemes

global models attempt to coherently explain accreting black holes over a broad range of masses and accretion rates

Fundamental Plane for Black Hole Activity (Merloni et al. 2003)

<u>Hypothesis Tested during the STSM:</u>

Accretion is supposed to transit from the inefficient to efficient regime with the FP correlation expected to break down. Objects accreting at high Eddington ratios, such as Narrow-Line Seyfert 1, should therefore depart from the observed correlation. A substantial increase in the scatter should appear above the critical accretion rate.

Results obtained during the STSM:

NLSy1 show a larger scatter with respect to RQ LINERs. NLSy1 are highly accreting systems, well separated from LINERs and showing a strong scatter in the FP, confirming the idea that the accretion regime might be different in these sources with respect to low luminosity AGN and confirming the validity of the FP.

