

## How does the host galaxy affect the BH virial mass estimates?

*Wednesday, 10 October 2018 11:30 (15 minutes)*

Virial-based methods for estimating active supermassive black hole masses are commonly used on extremely large spectroscopic quasar catalogs. Most spectral analyses, though, do not pay enough attention to the detailed continuum decomposition. To understand how this affects virial mass estimates, I tested the influence of host galaxy light on them by means of a detailed spectral analysis with the new software QSFit.

I will show that taking or not the host galaxy component into consideration influences the emission line fitting. This can significantly affect the virial mass estimates, especially at low redshift, where in fact dimmer quasars and more visible host galaxies are observed.

### **Affiliation**

Università degli Studi Milano-Bicocca

**Primary author:** VARISCO, Ludovica (Univ. Milano Bicocca)

**Co-authors:** SBARRATO, Tullia (Università degli Studi di Milano - Bicocca); CALDERONE, Giorgio (Istituto Nazionale di Astrofisica (INAF)); Prof. DOTTI, Massimo (Università degli Studi Milano-Bicocca)

**Presenter:** VARISCO, Ludovica (Univ. Milano Bicocca)

**Session Classification:** Central engine and circum-nuclear regions