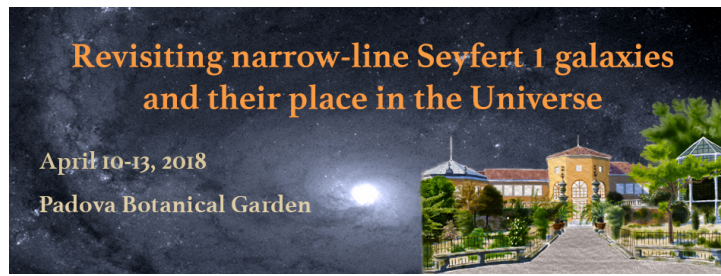


## Revisiting narrow-line Seyfert 1 galaxies and their place in the Universe



Contribution ID: 43

Type: **Talk**

### Host galaxies of jetted narrow-line Seyfert 1 galaxies

*Friday, 13 April 2018 12:00 (20 minutes)*

Host galaxy morphology studies of jetted narrow-line Seyfert 1 galaxies (NLS1) are scarce; so far only three of them have been investigated in detail. Though all three are hosted by late-type galaxies the sample size is too small to establish a preferred host galaxy type for jetted NLS1 sources; increasing the sample size is crucial to achieve statistically significant results. To this end we observed the host galaxies of nine NLS1 sources in near-infrared using NOTCam at the Nordic Optical Telescope. Seven of these sources are jetted based on the 37 GHz observations at Metsähovi Radio Observatory (see A. Lähteenmäki's talk). To determine the morphological types of the hosts we performed photometric decomposition of the near-infrared images using GALFIT. Here we present the results of the host galaxy modeling, discuss the importance of this study to our understanding of the nature of the diverse NLS1 population, as well as its significance and implications for active galactic nuclei research in general.

#### Motivation

At the time of the conference I will be funded by a grant of the Finnish Cultural Foundation, and this grant does not include travel funds. Without supplemental funding I might have difficulties to attend the conference.

Currently I am a doctoral student at the Aalto University Metsähovi Radio Observatory and will be defending my thesis later this year. I started studying narrow-line Seyfert 1 galaxies already in my master's thesis, and am continuing the research in my doctoral thesis, which tentative title is 'A broad multifrequency study of NLS1 galaxies'. This includes extensive statistical studies of the multifrequency and other properties, for example, the large-scale environments, of NLS1 galaxies, as well as more detailed studies of various properties, e.g. radio and host galaxy morphologies, and high radio frequency characteristics, of smaller samples.

I believe my research to be particularly relevant to the conference.

#### Grant

yes

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