

A panchromatic view of the broad line region of a narrow-line Seyfert 1

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The broad line region of active galactic nuclei, tightly connected to the central engine's activity, is still poorly understood. In this talk, we present an analysis of X-ray, UV and optical spectroscopic observations of the broad emission lines applied for the first time to a narrow-line Seyfert 1 (Juranova et al., to be subm.). For the panchromatic modelling of the broad-line emission, we adopt the 'locally optimally emitting cloud' approach and investigate the possible scenarios resulting in the observed complexity of the data. We compare the results with the broad line regions observed in normal Seyfert 1s and demonstrate the power of this method in placing constraints on the properties of the active galactic nucleus environment. Finally, we show that models with wind-like geometry based on this approach are promising candidates for a more insightful description of the broad line region structure.

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