Nuclear Activity in Galaxies Across Cosmic Time
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The BLR physics from the long-term optical monitoring of type-1 AGN

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Abstract. The variation of optical continuum and broad emission lines is observed in all type 1 active galactic nuclei (AGN). In some cases even extreme variability is detected when broad-line profiles completely disappear as is the case in the co-called changing-look AGN, which raise new question on the theoretical model of AGN. This variability is an important tool to study the physics and geometry of the broad line region (BLR), e.g. it can be used to estimate its size through the reverberation mapping technique. Especially, long-term campaigns give new insights, like the detection of the periodic signals or discoveries of changing-look AGN. Here we will present the results of our long-term monitoring campaign of several well-known AGN, as e.g. NGC 3516 for which we confirm that it is the changing-look AGN, putting special attention of the applications for future large time-domain spectroscopic surveys, like the MaunaKea Spectroscopic Explorer project.

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