

# POST-OUTBURST SPECTROSCOPIC INVESTIGATION OF NORTHERN NOVAE

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The understanding of the nova explosion mechanisms requires systematic investigations of the different stages of evolution with high time cadence. While photometric investigations are routinely performed, spectroscopic observations are generally clustered around the maximum and in the first weeks/months after the outburst. The extensive Tololo and SMARTS spectroscopic atlases of novae are mainly focused on Southern novae. I will present the results of the optical spectroscopic investigation of a sample of Northern novae, covering the stages from the pre-maximum stage, when present, to the nebular stage. The observations have been performed at the Loiano Observatory, Italy. I will present the results about some peculiar novae showing cusps, flares, long pre-maximum stages, gamma ray emission, during their evolution, correlating the optical observations with multi-frequency investigations.