The Robotic FLOYDS Spectrographs

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Abstract

I will discuss the twin FLOYDS robotic spectrographs, operating at the 2m Faulkes Telescopes North and South. The FLOYDS instruments were designed with supernova classification and monitoring in mind, with a very large wavelength coverage ($\sim$320 to 1000 nm) and a resolution ($R \sim 300 - 500$, wavelength dependent) well-matched to the broad features of these and other transient and time domain events. Robotic acquisition of spectroscopic targets is the key ingredient for making robotic spectroscopy possible, and FLOYDS uses a slit-viewing camera with a $\sim 4' \times 6'$ field to either do direct world coordinate system fitting or standard blind offsets to automatically place science targets into the slit. Future work includes an 'all-electronic' target of opportunity mode, which will allow for fast transient spectroscopy with no human necessary, even for inputting information into a phase 2 GUI. Initial science highlights from FLOYDS will also be presented.