Contributed Talk

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Small scale chromospheric fibrils observed by SUNRISE 2

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The special observing conditions of the SUNRISE observatory allow us observations with unprecedented temporal stability and spatial resolution in the UV. During the second scientific flight, a time series of narrow-band intensity images were recorded using the Sunrise Filter Imager (SuFI) in the Ca II H line for approximately one hour at a cadence of 7 seconds. Using this unique data set we used an automatic fibril tracking algorithm to identify and characterise the morphological properties of 598 slender Ca II H fibrils. In addition, the fibril tracking algorithm delivered an average backbone of every fibril allowing us the study of width and intensity oscillations at several positions along the fibril. A wavelet analysis was then applied to these oscillations to compute their periods, phase relations and the phase speeds. We find that a majority of the fibrils exhibit a clear anti-correlation between the width and intensity oscillations which can be interpreted as a sausage mode.