DETECTED UMBRAL FLASH OSCILLATIONS IN NOAA AR12384

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We investigate umbral oscillations in NOAA AR 12384 AR utilizing H-\(\alpha\) off band data acquired on 14 July 2015 with the Visible Imaging Spectrometer (VIS) operating at the Goode Solar Telescope (GST) in Big Bear Solar Observatory. To analyze intensity fluctuation at each individual pixel we used the wavelet analysis method and found the following: i) the darkest core of the sunspot umbrae showed the shortest oscillations (about two minutes), while the outer part of the umbrae showed much longer oscillation (about four minutes); ii) the oscillation period decreases gradually from darker to relatively less darker regions. We thus conclude that oscillations inside sunspot umbrae are strongly related to magnetic field strength.