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Circadian rhythms are the roughly 24h patterns observed in both locomotor activity and gene expression in a wide variety of organisms. These rhythms can be entrained to the daily light-dark cycle but also persist in the absence of time cues, for example, in constant very dim light. Wavelet ridge analysis using complex-valued analytic wavelets has emerged as an effective tool to measure period, phase, and amplitude over time in noisy, non-stationary circadian time series. I supervised a group of math majors from Amherst College who worked with biology majors at Smith College to apply wavelet ridge analysis to wheel running records and clock gene expression data as part of a project to study the central circadian clock in the brain as well as peripheral clocks found in tissues throughout the body. (Received September 17, 2010)