

This fall, I worked with professor Sarah Harmon on a project pushing forward analysis of a method called Locomotor Inactivity (LI) using sleep-REM cycles in ultradian physiological

oscillations, including body movement: this can be tracked using actigraphy (watch-measured) data, which is what we used for analysis. We examined whether differences in ultradian cycling over the course of a night exist across age, sex, and particularly disease etiology.

We used an existing python package, called pyActigraphy, which provided built-in functionality. However, we expanded on some of that functionality to try to improve the best-fit period detection. At the moment, we are working to improve, we are connecting with researchers and code developers to push forward the period detection issue, including some from universities in the UK and Munich.

