



Biology Seminar

Speaker: Bing Wen Brunton PhD

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Agile movement and embodied intelligence: Computational and comparative considerations

The diagram consists of a black rectangular background. On the left, there is a photograph of a blue and yellow fly with its wings spread, labeled 'The Animal' in yellow text above it. On the right, there is a photograph of pink flowers, labeled 'The World' in yellow text above it. A yellow curved arrow points from 'The Animal' to 'The World' at the top, labeled 'Actions' in white text. A yellow curved arrow points from 'The World' back to 'The Animal' at the bottom, labeled 'Measurables' in white text.

Wednesday, October 19, 2022
12:00PM | HCK 132

Our ability to study brain and behavior has long proceeded in lock-step with advances in technology. At the same time, understanding of neurobiological principles has continuously driven technological innovations,

including serving as the inspiration for most of the major advances in artificial intelligence. Even so, engineered systems still struggle to achieve flexible behaviors that require interaction with the physics of the world. All animals excel at such sensorimotor behaviors within their natural contexts. In this talk, I will tell a story in 3 parts, all within the broad theme of developing data-intensive approaches to connect brain and behavior. In particular, I will describe several research threads asking how animals accomplish dexterous, coordinated movements in uncertain environments. I will highlight my love of natural behaviors, dynamical systems, and open science. These stories feature several fun collaborations, including joint work with experimental neurobiologists, mathematicians, and engineers.

