Observing computational instruction: comparing beliefs and enacted practice
ASHLEIGH LEARY, PAUL IRVING, MARCOS CABALLERO, Michigan State Univ — The interactions that an instructor has with their students is instrumental when integrating computation into the undergraduate physics curriculum. With group-based learning especially, there is often an emphasis put on striking a balance between actual instruction and allowing room for student growth, independent of an instructor. In the $P^3$ classroom at MSU, students are exposed to context rich minimally working programs using the language of VPython, many for the first time, and are guided by instructors who help shape their understanding of physics and the utility of computation in the doing of physics. The ways in which the instructors shape this understanding varies, but each has a preferred method characterized by certain moves and meta messages. This poster cross-examines how a specific instructor in $P^3$ believes they teach physics through computation, and compares those methods to actual classroom interactions with students via video data.