

Choose Ohio First

JOINT MEETING OF CHOOSE OHIO FIRST (COF) AND
SOCIETY OF PHYSICS STUDENTS (SPS)

Abiotic structures for passive resource management

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Abstract: All organisms need to maintain appropriate exchange of energy and matter with their environments. In some circumstances, particularly when certain resources are scarce, Nature harnesses unexpected physical mechanisms with static, non-living material to manage them and provides us with lessons for potential translation. In this talk, I will review a few examples from our current research: how the surface morphology of a desert beetle manipulates the wind to harvest fog; how a termite mound harnesses the daily oscillation of ambient heat to drive respiration; and to what extent the geometry of respiratory pores (in bird eggs, beetles, and leaves) can manipulate tradeoffs in respiratory exchange.

Pizza & Soda provided!

WHERE

SR - 151

WHEN

11:30 - 12:20

Tuesday, February 15th, 2022