

School of Plant Sciences Seminar

Tuesday, September 2 • 4pm • Marley 230 and Zoom*
Coffee, cookies, and collegiality, 3:30pm, Marley lobby

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***“Pheno what? – On the road with
phenomics as a rising discipline
in the plant world”***



*Co-sponsored by the School of Plant Sciences
and the Ecosystem Genomics GIDP • Hosted by Marc Orbach*

*Please join us in person if you can. Remote participation is also welcome:
<https://arizona.zoom.us/j/86313228861> (passcode: SPLS2025)

Abstract: 20 years ago, as a Master student, I started my first collaboration with a plant biologist, and back then, the term "phenomics" was essentially non-existent. Yet, why do we need it, and what makes it different from other -omics? And why does this computer scientist turn into a plant science professor? In short, Plant Phenomics employs formal systems, such as sensors, algorithms, and simulations, to aggregate and integrate data on the multiscale dynamics between plants and their environment. In its definition, plant phenomics strongly emphasizes the recognition of all biological and ecological scales equally and distinguishes strictly between observable and measurable quantities. This emphasis defines a space where formal and hypothesis-driven science disciplines intersect to challenge established concepts, such as the notion that the phenome encompasses all measurable traits or that the phenotype is only the sum of the genome, environment, and gene-environment interactions. This seminar invites everyone—from undergraduates to emeriti—to join today's debates, where current ideas may be too limited for a changing planet.



Plant
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Ecosystem Genomics

Graduate Interdisciplinary Program