

Saturday, October 10, 4:20-5:10 p.m.

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Modeling plant responses to environmental change: from imperfection to inference

Integrated research across biological scales is vital to understand and anticipate the response of plants to global environmental change. There is now a plethora of ecological, natural history, climate, and remotely sensed data available to address this important issue. Integrating these disparate (and often ‘messy’) datasets into models across spatial, temporal, and biological scales is tantalizing but perilous. Using examples ranging from climate data interpolation to monitoring ecosystem resilience from space to the demographics of *Protea spp.* in South African shrublands, I will discuss several important challenges that must be addressed to rigorously harness these data streams (and keep track of their uncertainties) for scientific progress and prudent decision-making.