

abstract

JOINT BIOLOGY/MATH SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

Recent imaging techniques for acquiring and processing microscopic data, combined with computational models and simulations, are leading to a mechanistic understanding of the development of patterns and forms in plants. This presentation will focus on two processes: phyllotactic patterning, the regular arrangement of plant organs around their supporting stems that underlies the beauty of flowers, and the development of leaves. An important role in these processes is played by the plant hormone auxin. Interestingly, the mechanisms of auxin-driven patterning are different from the better-known paradigms of reaction-diffusion and positional information. The presented processes will be illustrated using interactive simulations and visualizations.