

The Lambert W Function in Ecological and Evolutionary Models

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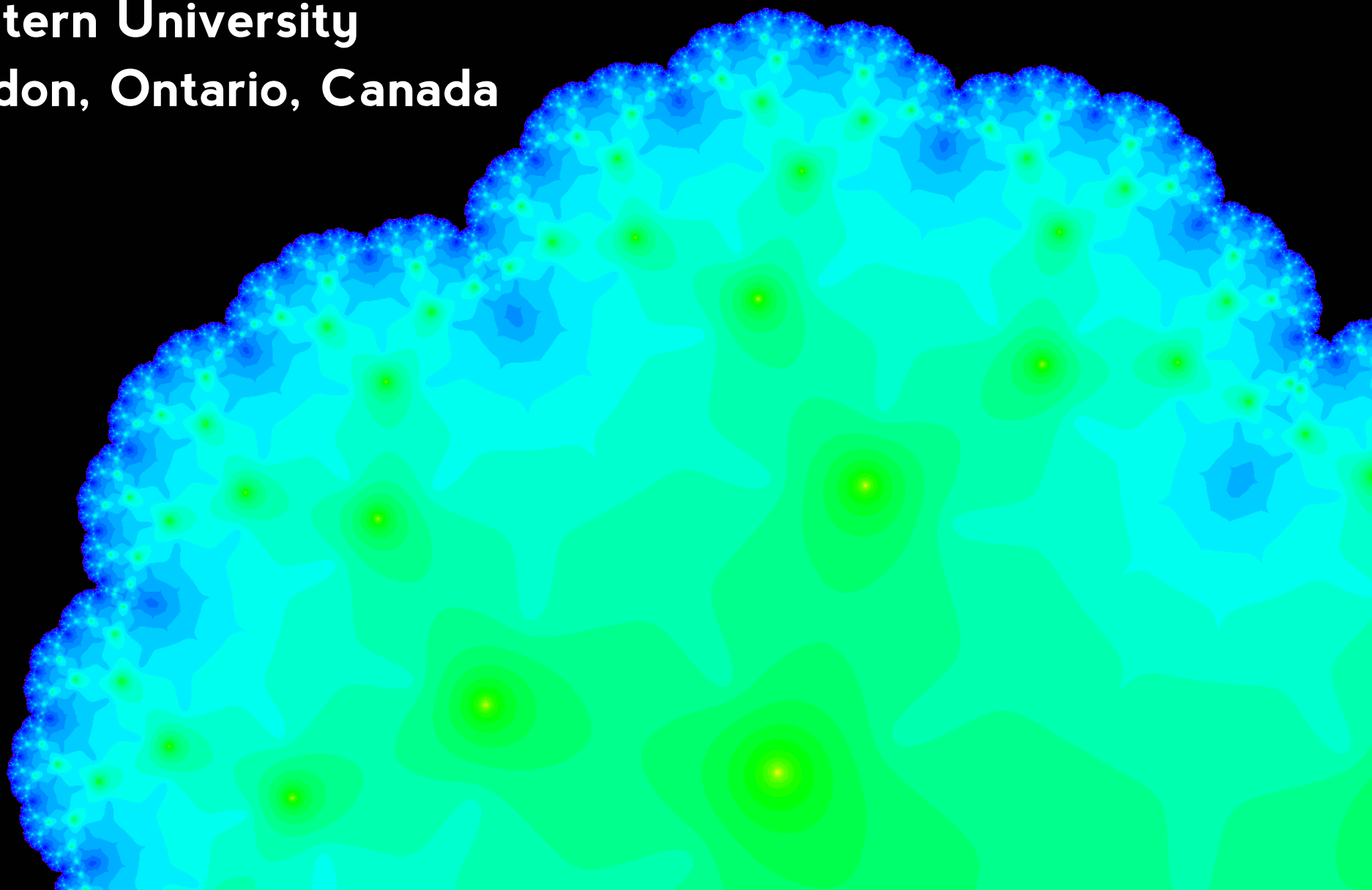
**20 Years of Lambert W
Lecture Series**



The Lambert W function arises from many models in the natural sciences, including a surprising number of problems in ecology and evolutionary biology. In many cases, solving these models explicitly with W can provide increased convenience, deeper insight and a new point of view on a biological problem, and makes further mathematical operations, such as differentiation and integration easier.

I will present applications of W in biology, where it expands the range of explicitly solvable models in problems ranging from population growth rates to fertilization kinetics and disease dynamics. I will also discuss some common features of biological processes that seem to make them amenable to solutions with the Lambert W function.

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