

# Approximate Simulations of Dynamical Graph Grammars using the DGG Modeling Library

## Disseration Defense

Eric Medwedeff, May 22nd 2024

### Disseration Committee:

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# Overview

## Outline for the dissertation defense

1. Dynamic Graphs and the Dynamical Graph Grammar (DGG) Formalism
2. Algorithms, the Exact and Approximate
3. The Dynamical Graph Grammar Modeling Library (DGGML)
4. DGG Example Applications
  - The Plant Cell Cortical Microtubule Array (CMA) DGG
  - The Plant Cell Periclinal Cortical Microtubule Array (PCMA) DGG
5. Conclusions and Future Work