

1135-34-1129      **Jesica Bauer\*** (jbauer@carroll.edu) and **Eric Sullivan** (esullivan@carroll.edu). *Brewing the Perfect Cup of Tea with Differential Equations.*

What makes a great cup of tea? What do differential equations have to do with it? We designed a differential equations modeling scenario where students model various aspects of the preparation of a perfect cup of tea. Students were given photographs of the steeping process, temperature data, and volume data for the dissolution of a sugar cube and were asked to estimate parameters and generate differential equation models for all three processes. We will present solutions to the models, common student approaches, suggestions for running the modeling scenario in your class, and logistical issues and concerns. This work is published on the open access resource SIMIODE (Received September 19, 2017)