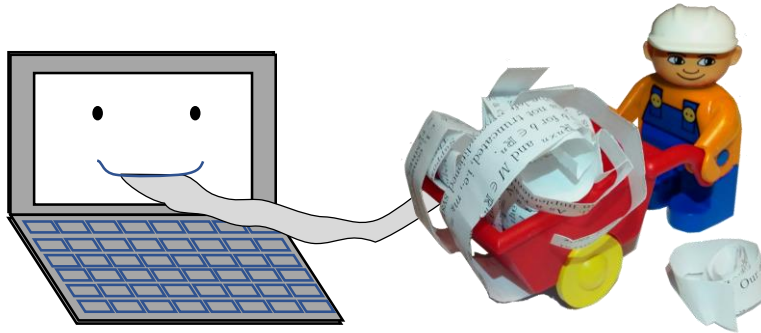


# Data Driven Computing

## (A Thesis Defense)



**Trenton Kirchoerfer**

Wednesday, July 12, 2017

Time: 9:30 am

Location: Lees-Kubota Lecture Hall, 133 Guggenheim

To perform a simulation in mechanics we typically have to

- 1) Gather constitutive data
- 2) Summarize it into a model
- 3) Perform the simulation

Our idea: Get rid of step 2!

The work of this thesis seeks to perform simulations through direct references to the constitutive data without formulating a constitutive model. There are new concepts, there are demonstration problems, and there are animations (no cute animals though). A model is still used to generate data and provide a reference solution for testing these new methods, in case you were worried about the models.