

1117-92-445

Nicolette Meshkat* (nmeshkat@scu.edu) and **Seth Sullivant**. *An algebraic approach to the structural (un-)identifiability problem in systems biology.*

The problem of parameter identifiability for a mathematical model is about finding which unknown parameters can be determined from known data. If all of the parameters can be determined, uniquely or finitely, the model is said to be identifiable. Otherwise, the model is said to be unidentifiable. Many models in systems biology are unidentifiable and thus the question that arises is what should one do with an unidentifiable model? One approach is to find identifiable functions of the parameters and attempt to reparameterize the model over these identifiable functions. We will discuss some methods to find these identifiable functions of parameters using algebraic techniques. (Received January 18, 2016)