1154-28-1551 **Matthew Badger*** (matthew.badger@uconn.edu). *Rectifiability of measures: the identification problem.*

One goal of geometric measure theory is to understand how measures in the plane or higher dimensional Euclidean space interact with families of lower dimensional sets. An important dichotomy arises between the class of rectifiable measures, which give full measure to a countable union of the lower dimensional sets, and the class of purely unrectifiable measures, which assign measure zero to each distinguished set. There are several commonly used definitions of rectifiable and purely unrectifiable measures in the literature (using different families of lower dimensional sets such as Lipschitz images of subspaces or Lipschitz graphs), but all of them can be encoded using the same framework. In this talk, I will describe the framework for generalized rectifiability, review a selection of classical results on rectifiable measures in this context, and survey recent advances on the identification problem for Radon measures that are carried by Lipschitz or Hölder or $C^{1,\alpha}$ images of Euclidean subspaces, including theorems of Azzam-Tolsa, Badger-Schul, Badger-Vellis, Edelen-Naber-Valtorta, Ghinassi, Goering, Naples, Santilli, and Tolsa-Toro. (Received September 16, 2019)