Niels Martin Møller* (moller@math.princeton.edu), Fine Hall, Washington Road, Room 1210, Princeton, NJ 08544, and Stephen J Kleene and Nikolaos Kapouleas. Gluing of Self-Similar Solitons in Mean Curvature Flow.

I will explain some past and current projects in which gluing constructions for self-similar solitons in geometric evolution problems defined via nonlinear parabolic PDEs (such as the mean curvature flow) are investigated, as a rigorous way of obtaining many new examples of solitons (and hence singularity models for the flow) of nontrivial topology. Some of the presented results are joint with N. Kapouleas and S. Kleene. (Received August 19, 2013)