1145-65-439   **Shuwang Li***, 10 West 32nd Street, RE building Room 208, Chicago, IL 60616. *An adaptive rescaling scheme for moving interface problems.*

In this talk, we present a time and space rescaling scheme for the computation of moving interface problems. The idea is to map time-space such that in the new frame the interfaces dynamics can be accelerated for a slowly expanding interface, or slowed down for a fast shrinking interface, while the area/volume enclosed by the interface remains unchanged. The rescaling scheme significantly reduces the computation time (especially for slow growth), and enables one to accurately simulate the very long-time dynamics of moving interfaces. (Received September 06, 2018)