

# Topology Seminar

**Søren Galatius**

of Stanford University will be speaking on

homotopy colimit decomposition of  
compactified moduli space

on September 15 at 4:30 in  
MIT Room 2-131

The moduli space of Riemann surfaces  $M$  is a classifying space for families of Riemann surfaces. It has a compactification  $\bar{M}$ , which is a classifying space for families of nodal Riemann surfaces. A nodal Riemann surface is allowed to have singularities which look like the solutions to  $zw = 0$  in complex 2-space. I will describe how to decompose  $\bar{M}$  as a homotopy colimit of spaces which look more like  $M$ . Then I will use this to study part of the homology of  $\bar{M}$ , using what is known about the homology of  $M$ .