NATASA SESUM, Rutgers University
Ancient solutions and singularities in geometric flows

Ancient solutions appear as singularity models in geometric flows. Understanding those is important for understanding singularities that occur while flowing a metric in either the Ricci flow or the Yamabe flow or flowing a hypersurface in the mean curvature flow. In the first part of the talk we will give an overview of known properties for ancient solutions and our recent classification results of those, especially in the mean curvature flow. In the second part of the talk we will discuss extension results for the mean curvature flow.