

1088-53-61

**Chi Li\*** (chi.li@stonybrook.edu) and **Song Sun**. *Construction of conic Kahler-Einstein metrics.*

I will talk about joint work with Dr. Song Sun. We develop the degeneration-interpolation method for constructing conic Kahler-Einstein metrics. As an application, we prove that Kahler-Einstein metric on  $P^2$  with cone singularities along a smooth degree 2 curve exists if and only if the cone angle is in the interval  $(\pi/4, 2\pi]$ . When the cone angle is  $\pi/3$ , this conic Kahler-Einstein metric induces a Calabi-Yau cone metric on 3 dimensional  $A_2$  singularity. This answers a question by Gauntlett-Martelli-Sparks-Yau. (Received January 31, 2013)