1099-35-337   **Chengbo Wang*** (`wangcbo@zju.edu.cn`), Department of Mathematics, Zhejiang University, Hangzhou, Zhejiang 310027, Peoples Rep of China. *Recent works on the Glassey conjecture.*

In this talk, we will discuss the recent advances on the global existence vs blow up for small solutions to certain semilinear wave equations of type $u_{tt} - \Delta u = a|u_t|^p + b|\nabla u|^p$, in relation with the Glassey conjecture. The critical index is conjectured to be $pc = 1 + 2/(n-1)$. It's known to admit global small solutions for $p > pc$ when the spatial dimension is two or three, and generic small solutions blow up for $p \leq pc$.

In collaboration with Kunio Hidano and Kazuyoshi Yokoyama, we verified the Glassey conjecture in the radial case (global existence for $p > pc$). Such results have also been generalized to the settings including asymptotically flat manifolds and exterior domains. If time permitted, we'd also like to discuss the corresponding works with low regularity. (Received February 11, 2014)