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# Joint Geometric Analysis Seminar

(Part of MIST program)

## *Existence of four minimal spheres in $S^3$ with a bumpy metric*

*Prof. Zhichao Wang*  
*Shanghai Center for Mathematical Sciences,*  
*Fudan University*

### *Abstract*

In this joint work with X. Zhou, we prove that in the three dimensional sphere with a bumpy metric or a metric with positive Ricci curvature, there exist at least four distinct embedded minimal two-spheres. This confirms a conjecture of S. T. Yau in 1982 for bumpy metrics and metrics with positive Ricci curvature. The proof relies on a multiplicity one theorem for the Simon-Smith min-max theory.

Date: October 13, 2023 (Friday)

Time: 11:00am-noon (Hong Kong time)

ZOOM link: <https://cuhk.zoom.us/j/91805734715>

*All are Welcome*