



复旦大学数学科学学院 数学综合报告会

报告题目: Normalisation for hyperbolic Bishop surface

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地点: 光华楼东主楼1501

报告摘要:

We are interested in the geometry of germs of real analytic surfaces in $(\mathbb{C}^2, 0)$ with the origin an isolated Cauchy-Riemann singularity. More precisely, we consider the perturbations of non-exceptional hyperbolic quadrics in the sense of Bishop. In contrast with the elliptic case, Moser-Webster have shown that there exists surfaces which can not be holomorphically equivalent to a collection of hyperbolas, i.e. the normal form in the sense of Moser-Webster.

In a joint work with L. Stolovitch, we show that, if the hyperbolic Bishop surface is non-degenerated, then there are plenty of holomorphic curves intersecting the surface along holomorphic hyperbolas. This is a consequence of a KAM-type theorem for the germs of holomorphic involutions around an elliptic fixed point.

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