

On some analytic and geometric aspects of obstruction flat hypersurfaces

报告人：徐行（中山大学数学学院（珠海））

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报告摘要：

Let $\Omega \subset C^n$ be a smoothly bounded strongly pseudoconvex domain. By the work of Cheng and Yau, there exists a defining function u for Ω , such that $-\partial\bar{\partial}\log u$ is a complete Kahler-Einstein metric on Ω . By the work of Lee and Melrose, in general u is only $C^{n+2-\epsilon}$ up to the boundary $\partial\Omega$. The higher order smoothness is obstructed by a log term whose coefficient is a local CR invariant. The boundary $\partial\Omega$ is called obstruction flat if this CR invariant vanishes. In this talk, we first give an exposition on the obstruction flatness, and then talk about some recent results on its geometric significance. This is work in progress joint with Peter Ebenfelt and Ming Xiao.

报告人简介：

徐行，中山大学数学学院（珠海）副教授。本科毕业于浙江大学，博士毕业于加州大学尔湾分校。主要研究方向为多复变、复几何与CR几何，在IMRN, JGA, MRL等期刊发表论文10篇。

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