

➤ 会议日程（会场地点：省身楼2楼216教室）

日期	时间	内容
10月27日	10:30-20:00	报到注册（南开大学嘉园宾馆）
10月28日 (上午)	09:20-09:30	开幕式 主持人：冯惠涛
		主持人：白承铭
	09:30-10:20	张伟平（南开大学） Analytic torsion revisited
	10:20-11:00	茶歇
		主持人：唐梓洲
	11:00-11:50	史宇光（北京大学） Foliation of Minimal Hypersurfaces in Asymptotically Flat Manifolds
10月28日 (下午)		主持人：刘克峰
	15:00-15:50	周向宇（中国科学院数学研究所） Chern connection/curvature, Griffiths/Nakano positivity, and Hörmander/Demailly L^2 estimate
	15:50-16:20	茶歇
		主持人：傅吉祥
	16:20-17:10	杨晓奎（清华大学） New characterizations for spheres and projective spaces
10月29日 (上午)		主持人：李海中
	09:00-09:50	彦文娇（北京师范大学） Complex structures on isoparametric foliation
	09:50-10:20	茶歇
		主持人：丁青
	10:20-11:10	苏广想（南开大学） Llarull's theorem on odd dimensional noncompact manifolds
10月29日 (下午)		自由讨论

➤ 报告题目和摘要

史宇光（北京大学）

Title: Foliation of Minimal Hypersurfaces in Asymptotically Flat Manifolds (II)

Abstract: This is the continuation of our previous work. In this talk, I will delve into the foliation of minimal hypersurfaces within asymptotically flat (AF) manifolds of any dimensions no less than n . Additionally, I will provide an application concerning the Schoen conjecture on AF manifolds with nonnegative scalar curvature. This talk is based on my recent joint work with He Shihang who is my current PhD student and Dr. Yu Haobin

苏广想（南开大学）

Title: Llarull's theorem on odd dimensional noncompact manifolds

Abstract: Let (M, g^{TM}) be an odd dimensional ($\dim M \geq 3$) connected oriented noncompact complete spin Riemannian manifold. Let k^{TM} be the associated scalar curvature. Let $f: M \rightarrow S^{\dim M}(1)$ be a smooth area decreasing map which is locally constant near infinity and of nonzero degree. Suppose $k^{TM} \geq (\dim M)(\dim M - 1)$ on the support of df , we show that $\inf(k^{TM}) < 0$. This is a joint work with Yihan Li, Xiangsheng Wang and Weiping Zhang.

彦文娇（北京师范大学）

Title: Complex structures on isoparametric foliation

Abstract: We construct complex structures on a series of isoparametric hypersurfaces and focal submanifolds in the unit sphere. In this talk, we will introduce the constructions and talk about their properties. This talk is based on joint works with Professor Zizhou Tang and Professor Chao Qian.

杨晓奎（清华大学）

Title: New characterizations for spheres and projective spaces

Abstract: In this talk, we introduce a new positivity notion for curvature of Riemannian manifolds and use it to characterize spherical space forms and the complex projective spaces.

Moreover, we present some new volume comparison theorems and rigidity results on compact Kahler manifolds.

张伟平（南开大学）

Title: Analytic torsion revisited

周向宇（中国科学院数学研究所）

Title: Chern connection/curvature, Griffiths/Nakano positivity, and Hörmander/Demailly L^2 estimate

Abstract: Using Chern connection and Chern curvature on an hermitian holomorphic vector bundle, Griffiths and Nakano positivity are defined. A fundamental L^2 existence theorem due to Hörmander and Demailly asserts that Nakano positivity implies solvability of $\bar{\partial}$ -equation with optimal L^2 estimate. In this talk, we present our recent result (Deng-Ning-Wang-Zhou), asserting that the converse statement of the L^2 existence theorem holds too. This establishes an important relation between Differential Geometry and PDE. As an application, we solve a basic problem of Lempert's.