	6 月 20 日		6 月 21 日
10:00~11:30	**古星(西湖大学)** **The Motivic Cohomology of BPGL(n) over complex numbers**	10:00~11:30	**童浥尘(西湖大学)** **Cubical sets and directed graphs**
12:00~	午餐		
14:30~15:30	**杨会军(河南大学)** **Topological classification of complex vector bundles over 8-dimensional $spin^c$ manifolds**	12：30~	午餐与自由活动等
15:30~15:50	茶歇		
15:50~16:50	**黄瑞芝(中科院数学所)** **Unstable homotopy decomposition**		
17:00~18：00	**邬恩信(汕头大学)** **Smoothing homotopy theory**		
18：30~	晚宴		

报告与摘要

✧ Speaker: 古星(西湖大学)

Title: **The Motivic Cohomology of BPGL(n) over complex numbers**

Abstract: We present some results on the motivic cohomology of the ´etale classifying space of the projective linear group over C.

Keywords: motivic cohomology, classifying space, projective linear group.

报告人简介: 古星，2017 年毕业于美国伊利诺伊大学芝加哥分校，获博士学位。2017 年 11 月至 2020 年 1 月于澳大利亚墨尔本大学担任博士后，2020 年 2 月至 2021 年 1 月在德国马克斯普朗克数学研究所从事博士后研究工作，于 2022 年 4 月全职加入西湖大学，担任理论科学研究院特聘研究员/助理教授，主要研究方向为同伦论以及李群和代数群的示性类理论。在 **Proc. Amer. Math. Soc.**，**J. Topol. Anal.**，**J. London. Math. Soc.**， **J. Topol.**等期刊上发表多篇论文。

✧ Speaker: 黄瑞芝(中科院数学所)

Title: **An overview of unstable homotopy decomposition**

Abstract: Since 1950s unstable homotopy decomposition has been a fundamental subject in homotopy theory. It serves as a basic natural way to understand homotopy properties, for instance various global characterizations of homotopy groups. In this talk, I will give an overview of the development of this topic based on our recent comprehensive book "Unstable Homotopy Decomposition" joint with Stephen Theriault, including various decomposition methods, some major applications and several open problems.

报告人简介：黄瑞芝，中国科学院大学中国科学院数学与系统科学研究院数学研究所副研究员、博士生导师。

Research Fields: Algebraic topology and applications in manifold topology, differential geometry and mathematical physics, etc. Concretely, including: homotopy type of loop spaces of manifolds, homotopy type of suspension spaces of manifolds, unstable homotopy theory, rational homotopy theory, etc.

Publications: 在 **Adv. in math., Trans. AMS, J. London Math. Soc., Math. Z., J. Topol.**等期刊上发表多篇论文；另有专著一本：Unstable Homotopy Decompositions, **Series in Algebraic and Differential Geometry** (Series Editor Phillip A Griffiths) Vol 3, World Scientific Publishing.

Speaker: 杨会军 (河南大学)

Title: **Topological classification of complex vector bundles over 8-dimensional $spin^c$ manifolds**

Abstract: In this talk, complex vector bundles of rank r over 8-dimensional $spin^c$ manifolds will be classified in terms of the Chern classes of the complex vector bundles, where r = 3 or 4.

报告人简介：杨会军，河南大学副教授。研究兴趣是流形的拓扑，主要关心(稳定)近复结构的存在性问题。相关研究成果发表在 **Algebraic & Geometric Topology, Topology and its Applications, manuscripta math.**等期刊。

✧ Speaker: 邬恩信(汕头大学)

Title: **Smoothing homotopy theory**

Abstract: Differential topology and algebraic topology are two parallel subfields of topology based on different objects (manifolds and CW complexes) and different tools (calculus and abstract algebra). We will emphasize the distinction between smoothness and continuity, and propose a potential unifying framework together with an overview of its recent developments.

报告人简介：邬恩信， 2012 年博士毕业于加拿大西安大略大学，现任汕头大学副教授。研究领域为拓扑学，主要研究代数拓扑与广义流形；论文发表在 **Pacific J. Math., Adv. Math., Homol. Homot. Appl.**等学术期刊。

✧ Speaker: 童浥尘(西湖大学)

Title: **Cubical sets and directed graphs**

Abstract：Directed graphs are crucial combinatorial objects and are of great interest in both pure and applied mathematics. In particular, methods from algebraic topology, especially homotopy theory, have been introduced to study (directed) graphs. In the recent joint work with Daisuke Kishimoto, we associate a directed graph with a series of cubical sets, which captures key feature of a directed graph. As an application, we prove the Hurewicz theorem for the homotopy groups of a directed graph in the sense of Li-Wu-Yau-Zhang, where the target homology the singular cubical homology in the sense of Grigor'yan-Jimenez-Muranov. If time permits, I will also relate our constructions with the cubical nerve of a undirected graph in the sense of Carranza-Kapulkin, and the filtered (simplicial) nerve in the sense of Di-Ivanov-Mukoseev-Zhang.

报告人简介： 童浥尘，西湖大学理论研究院博士后，研究领域为代数拓扑，主要方向包括 Self-maps of topological spaces, Homotopy commutativity and nilpotency in manifolds, Discrete homotopy theory on directed graphs；论文发表在 **J. London Math. Soc.**, **Algebr. Geom. Topol.**, **J. Homotopy Relat. Struct., Homology Homotopy Appl.**等。