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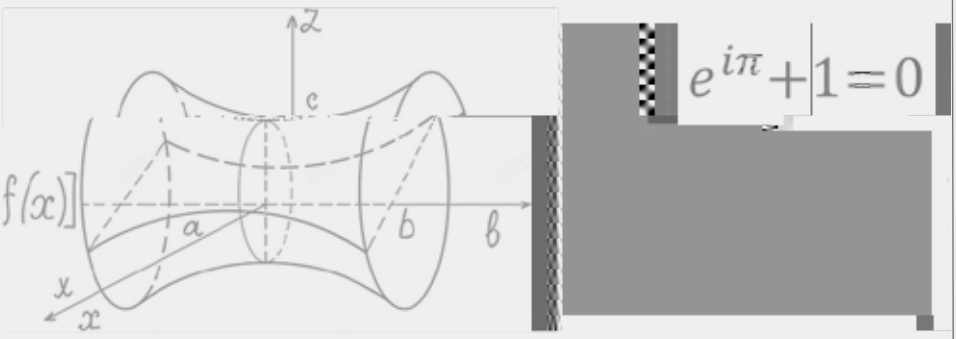

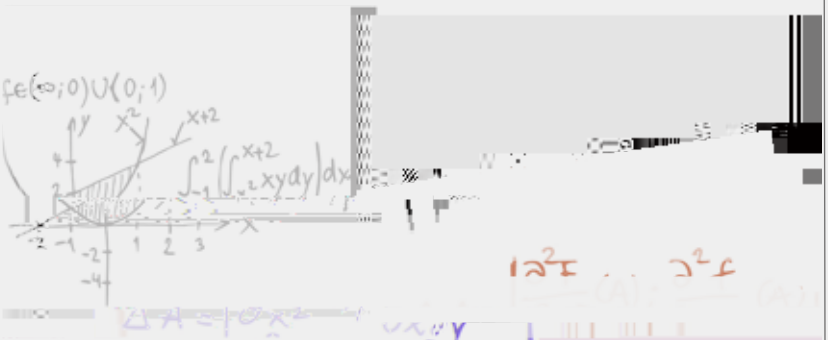

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时间	主持人	报告人	报 告 题 目	地点
09:30-09:40				
09:40-10:40			Navier-Stokes	734-737-203 221210
10:40-10:50				
10:50-11:20			Floyd boundary of groups with applications in random walks	
13:30-14:00				
14:00-15:00			Castelnuovo Bound and Higher Genus Gromov-Witten Invariants of Quintic 3-fold	
15:00-15:10				
15:10-15:30				
15:30-17:30				

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[redacted] Castelnuovo Bound and Higher Genus Gromov-Witten Invariants of Quintic 3-fold

[redacted] One of most di cult problems in geometry and physics is to compute higher genus Gromov-Witten (GW) invariants of compact Calabi-Yau 3-folds such as quintic 3-folds. The e ort to solve the problem leads to the inventions of several subjects such as mirror symmetry and FJRW theory. Almost twenty years ago, physicist Albrecht Klemm and his group shocked the community to produce explicit predications of higher genus GW invariants up to $g=51$! Their calculation is based on five mathematical conjectures, four BCOV conjectures from B-model and one A-model conjecture called Castelnuovo bound. Several years ago, a spectacular progress has been made to solve four BCOV conjectures. In this talk, I will report the solution of Castelnuovo bound conjecture.

This is a joint work with Zhiyu Liu.

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Crelle's journal, Journal of Topology, Math Ann

Floyd boundary of groups with applications in random walks

Floyd boundary was introduced by W. Floyd in 1980 to compactify any finitely generated group. In line with Mostow rigidity, Floyd then proved that this boundary recovers the limit set of geometrically finite Kleinian groups via purely group theoretic terms. After the work of Karlsson and Gerasimov, Floyd boundary becomes an important tool in understanding the geometry of relatively hyperbolic groups. Until recently, Floyd boundary found interesting connections and applications in the study of random walks on groups. In this talk, we will discuss the relation with the Martin boundary of random walks, and Hausdor dimension of the limit sets of branching random walks in Floyd boundary. These are based on joint works with various subsets of Dussaule, Gehktman, Gerasimov, Potaygailo, and Longmin Wang.

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40 Nature, Nature Genetics, Nature Communications, PNAS, Science Translational Medicine, Bioinformatics, Biometrika, NeurIPS

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