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The Hong Kong University of Science & Technology

Department of Mathematics

PhD Student Seminar

Tilings of the Sphere by Almost Equilateral Pentagons

By

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Abstract

The classification of tilings of the sphere by congruent pentagons can be divided into three cases: variable edge lengths, equilateral, and almost equilateral. The first two have been largely settled. By almost equilateral we mean a pentagon with four edges having equal length, and the fifth having different length. This case is the most difficult and techniques developed for the first two cases are not enough. With significant aid of decision-making type algorithms in wxMaxima, we have developed some new techniques. We have obtained the full classification of the case with three distinct angles. And we have also classified some cases with five distinct angles. This talk is based on the paper in collaboration with Min Yan, The Hong Kong University of Science & Technology.

Date: ***Monday, 7 May 2018***

Time: ***3:00 p.m.- 4:00 p.m.***

Venue: ***Room 4472 (near lift 25, 26)***

All are welcome!