



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 cases have been largely settled by Min Yan and his collaborators. The almost equilateral pentagon case is the most difficult and techniques developed for the other two cases are not enough. Previously, we obtained full classification of this case with three distinct angles. In this talk we will talk about the recent progress, the complete classification of five distinct angles under the assumption of the existence of a tile with all vertices being degree 3. We will also explain the new techniques developed to obtain this result and how it will fit into the classification programme. This talk is based on the paper in collaboration with Min Yan, The Hong Kong University of Science & Technology.

Date: Wednesday, 10 April 2019

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

Venue: Room 2303 (near Lifts 17-18)

All are welcome!