

The Tutte Polynomial and HOMFLY Polynomial
A/P Jin Xian An
Xiamen University, China

Date: 12 Jun 12 (Tues)
Time: 2.30 pm – 3.15 pm
Venue: MME Journal Room, NIE7-03-16

Abstract

In this talk, I will first associate a plane graph with an oriented link via replacing each edge of the graph by an alternatingly oriented 2-tangle, then establish a relation between the HOMFLY polynomial of the associated oriented link and the dichromatic (i.e. a variant of the Tutte polynomial) polynomial of the plane graph by assigning suitable edge weights. This result extends works of F. Jaeger and L. Traldi in the late 1980s. Finally I discuss some applications to polyhedral DNA links introduced in recent years in the field of chemistry and biology.

All are Welcome!

For more information, please contact fengming.dong@nie.edu.sg