

NTU Math Seminar

演講者 : Wai-Yeung Lam (Tamarkin Assistant Professor, Brown University)

講題 : Holomorphic quadratic differentials on graphs

時間 : 2019年2月18日 (星期一) 14:00 - 15:00

地點 : 臺灣大學天數館 202 室

摘要 : In the classical theory, holomorphic quadratic differentials on Riemann surfaces are tied to a wide range of objects, e.g. harmonic functions, Teichmueller space, dynamical systems and minimal surfaces. We present a discretization of holomorphic quadratic differentials that preserves such a rich theory.

We introduce discrete holomorphic quadratic differentials with various examples. On one hand, they arise from circle packings and discrete harmonic functions on graphs. On the other hand, they induce naturally a notion of discrete minimal surfaces. These correspondences to discrete conformal geometry and to the surface theory will be discussed in the talk. In the end, we will sketch how discrete holomorphic quadratic differentials relate to Teichmueller theory in hyperbolic geometry.

This talk aims at an introduction to Discrete Differential Geometry — structure-preserving discretization in differential geometry, which has led to applications in computer graphics and computational architecture in recent years.

茶會 : 15:00-16:00 (天數館 519 室)

相關事宜請與顏湘伶小姐聯絡 Tel:(02)3366-2822 歡迎上網查詢 網址 : <http://www.math.ntu.edu.tw>