



Michigan Mathematics G. Y. Rainich Lectures January 15-17, 2008

Professor Tian Gang

*Professor of Mathematics
Princeton University*

ICM speaker, 1990

19th Alan Waterman Award, 1994, NSF

Oswald Veblen Prize, American Mathematical Society, 1996

Elected to Chinese Academy of Sciences, 2001

ICM Plenary Speaker, 2002

Elected to American Academy of Arts and Sciences, 2004



Geometric Analysis of Low Dimensional Manifolds

In these lectures, I will discuss how to study geometry and topology of low dimensional manifolds by analytic methods. I will start with classical uniformization theorem in differential geometry and explain how it can be used to studying surfaces and 3-manifolds. Then I will discuss briefly the Ricci flow and geometrization of 3-manifolds. Finally, I will discuss recent progress on metric geometry of 4-manifolds and its relation to topology of 4-manifolds. Some open problems will be also presented.

Tuesday, January 15 • 4:00 • Room 1360 East Hall

Wednesday, January 16 • 3:00 • Room 3096 East Hall

Thursday, January 17 • 3:00 • Room 4088 East Hall

***A reception for the speaker will be held at 5:00 p.m.
Tuesday, January 15, in the Mathematics Upper Atrium, East Hall***

The Rainich Lectures were established in 1983 through a gift from Professor Emeritus Raymond Wilder and his wife Una, to honor Yuri Rainich, Mathematics faculty member from 1926-1956.