



Pacific Institute *for the*
Mathematical Sciences



UNIVERSITY OF
CALGARY

Summer School on Surgery and the Classification of Manifolds

18-22 July, 2016
The University of Calgary

The goal of this summer school is for participants to learn about the classification of manifolds, up to homeomorphism and diffeomorphism within a fixed homotopy type, using the technique of surgery.

This mathematics interacts with algebraic topology, geometric topology, differential topology, geometric group theory, and geometric functional analysis. The capstone speaker will be Guoliang Yu, who will discuss connections of surgery theory with index theory, with the Dirac operator and the existence of metrics of positive scalar curvature, and with the Novikov and Baum-Connes conjectures.

MENTORS:

Diarmuid Crowley (University of Aberdeen)
James Davis (Indiana University)
Qayum Khan (Saint Louis University)
Guoliang Yu (Texas A&M University)



CAPSTONE LECTURE:

Guoliang Yu (Texas A&M University)

ORGANIZING COMMITTEE: Kristine Bauer (University of Calgary), Donald Stanley (University of Regina)

SCIENTIFIC COMMITTEE: Diarmuid Crowley (co-chair), James Davis (co-chair), Qayum Khan, Guoliang Yu

WEBSITE & REGISTRATION: www.pims.math.ca/scientific-event/160718-ssscm