Applied Mathematics & Scientific Computing —————

Research & Education: Philosophy

▷   scientific computing for applications

computing & numerical analysis

PDE analysis & asymptotics

scientific modelling

▷   research networking (seminars, workshops & conferences)

▷   scientific collaboration (Ballard Power; NCAR)

Courses & Student Resources

▷   computational: numerical PDEs, numerical linear algebra, wavelets, CFD, finite element methods

▷   analytical: PDE analysis, asymptotic methods, dynamical systems

▷   scientific: fluid mechanics, elasticity, nonlinear models

▷   weekly seminars, special lectures & working groups

▷   SFU computing facilities: beowolf & alpha clusters, graphics, desktop workstations

Applied Mathematics Research

Active Research Themes

▷   numerical analysis & scientific computing   (Russell, Ruuth, Trummer)

▷   PDE analysis & asymptotics   (Choksi, Muraki, Promislow)

▷   nonlinear waves & dynamical systems   (Muraki, Promislow, Russell)

▷   optimization   (Borwein, Lewis)

▷   fluid mechanics & materials science   (Choksi, Graham, Kropinski, Muraki, Ruuth)

▷   scientific modelling   (Choksi, Kropinski, Muraki, Promislow)

Collaborations & Affiliations

▷   SFU: Center for Scientific Computing, CECM, Hi-Performance Computing (HPC)

▷   Pacific Institute (PIMS) & Mathematics in Info Tech (MITACS)

▷   Ballard Power Systems

▷   National Center for Atmospheric Research (NCAR)

▷   other SFU departments: computing, kinesiology, earth sciences, chemistry, physics . . .

▷   other universities: Brown, Colorado, NYU, UBC, UCLA, Washington . . .