Schedule for NIMBioS Tutorial: Optimal Control and Optimization for Biologists

Tuesday, Dec 15, 2009

8:15-8:45	Breakfast at NIMBioS
8:45	Introduction to NIMBioS (Louis Gross)
9:00-9:30	Introduction of participants
9:30-10:40	Introduction to OC of ODEs (Suzanne Lenhart)
10:40	Break
11:00-12:00	Systems of ODEs and bang-bang case (Lenhart)
12:00-1:00	Lunch at NIMBioS
1:00-2:00	Computer lab led by Lenhart, simple examples
2:00-3:30	Cancer Immunology Models (Renee Fister)
3:30	Break
4:00-5:30	Computer lab led by Lenhart, more examples
5:40-6:45	Reception at NIMBioS
7:00	Dinner

Wednesday

8:15-8:45	Breakfast at NIMBioS
8:45-10:00	Discrete models (Lenhart)
10:00	Break
10:30-12:00	Applications of constrained optimization in nature reserve design and harvesting (Paul Armsworth)
12:00-1:00	Lunch at NIMBioS
1:00-2:30	Mathematical programming (Mike Bevers)) Overview, introduction to linear and integer programming
2:30	Break
2:50-4:20	LP/IP computer lab (Bevers)
4:30-6:00	Discussion groups… applications of interest to participants - 3 groups
6:00-7:00	Dinner at NIMBioS
7:00-8:00	Groups report back to whole

Thursday

8:15-8:45	Breakfast at NIMBioS
8:45-10:15	Introduction to stochastic programming (Bevers)
10:15	Break
10:45-12:15	SP computer lab (Bevers)
12:15-1:15	Lunch at NIMBioS
1:15-2:45	Introduction to chance-constrained programming (Bevers)
3:15-4:45	CCP computer lab (Bevers), some brief notes on nonlinear programming and convexity if time allows
4:45-5:00	Closing remarks