## NIMBioS Investigative Workshop Algebraic Mathematical Biology - July 25-27 Draft Agenda

## Day 1 - July 25

8:00 - 8:45	Breakfast at NIMBioS
8:45 - 9:00	Welcome from NIMBioS and Introductions
9:00 - 9:15	Workshop goals and charge to participants (Raina)
9:15 - 10:15	John Jungck - A BioGraphy of Life (with 15 minutes for discussion)
10:15-10:30	Break
10:30 - 11:30	Debra Knisley - Invited Talk # 1 - Graph-theoretic models of protein structures
11:30 - 12:00	Discussion/activities for Talk # 1
12:00 - 1:00	Lunch
1:00 - 2:00	Jeff Knisley - Invited Talk # 2 - Graphs, networks, vertex weights, and
	machine learning
2:00 - 2:30	Discussion/activities for Talk # 2
2:30 - 2:45	Break
2:45 - 3:45	Natasha Jonoska - Invited Talk #3 - Graph polynomials and other graph
	invariants from DNA rearrangements
3:45 - 4:15	Discussion/activities for Talk # 3
4:15-5:15	Parallel group discussions for Topics # 1, 2, 3; hands-on activities; discussion
	re specific projects/material development
5:15 - 6:00	Reception at NIMBioS with UT/NIMBioS postdocs and faculty and with the
	Humans and Climate Change working group

## **Day 2 - July 26**

8:00 - 8:30	Breakfast at NIMBioS
8:30 - 9:15	Raina Robeva - Review of Curricular Materials in Algebraic Biology (with 15
	minutes for discussion)
9:15 - 10:15	Mathew Macauley - Boolean Network Models in Biology (with 15 minutes for
	discussion)
10:15 - 10:30	Break
10:30 - 11:30	Katherine Morrison - Invited Talk #4 - Predicting neural network dynamics
	from graph structure
11:30 - 12:00	Discussion/activities for Talk # 4
12:00 - 12:05	Group Picture!
12:05 - 1:00	Lunch
1:00-2:00	Chad Giusti - Invited Talk # 5 - Detecting sructure in neuronal networks
2:00 - 2:30	Discussion/activities for Talk # 5
2:30 - 2:45	Break
2:45 - 3:45	Parallel group discussions for Topics # 4, 5; hands-on activities; discussion re
	specific projects/material development
3:45 - 4:00	Forming groups by interests/topics that will work together for the rest of the
	workshop and afterwards
4:00 - 5:30	Parallel group discussions by interests for all topics; hands-on activities;

projects/material development
-------------------------------

## Day 3 - July 27

8:00 - 8:30	Breakfast at NIMBioS
8:30 - 10:15	Parallel group discussions by interestsf for all topics; hands-on activities;
	projects/material development
10:15 - 10:30	Break
10:30 - 11:30	Group presentations and reports: project topic, title, scope, target audience,
	timeline for completion
11:30 - 12:00	Workshop evaluations and closing remarks
12:00 - 1:00	Lunch