Workshop on Numerical Methods in Cell Biology
March 26, 2015
Mission Bay Conference Center
Fisher Banquet Room

8:00 – BREAKFAST - REFRESHMENTS

9:00 Wallace Marshall UCSF
       Matt Thomson   UCSF
 Welcome and introduction

9:10 Robert Guy   UC Davis
Aporoelastic immersed boundary method with applications to amoeboid cell locomotion

9:30 Thomas Fai   Harvard
*Fluid-structure interaction in biology:
 some applications of the immersed
 boundary method*

9:50 Juan Carlos del Alamo UC San Diego
3D traction force dynamics in amoeboid cell migration

10:10 Daniel Wells   Northwestern U
Topological methods for characterizing physical properties in cell biology

 10:30 – 11:00 BREAK

11:00 Daniel Needleman   Harvard
Bayesian analysis of FLIM/FRET for Quantitative Cell Biology

11:20 Taviare Hawkins   U of Wisconsin
Exploring microtubule mechanics with image processing

11:40 Michael Hagan   Brandeis U
Long-range order of motile defects in active nematics

12:00 – 1:30 LUNCH

1:30 Andrea Liu   U of Pennsylvania
A minimal model for chromosome dynamics during metaphase

1:50   Linda Shapiro   U of Washington
Digital pathology

2:10   Elaine Angelino   UC Berkeley
Sparse network inference

2:30   Ilya Nemenman   Emory U
Inferring phenomenological models of systems dynamic

 2:50 – 3:10 BREAK

**3:10 – 4:10 BREAKOUT SESSION
(Conference Rooms 1 and 2)**

4:10 - 4:40 BREAK

4:40 Alex Fields   UCSF
Identification of non-canonical translated coding sequences in primary dendritic cells"

5:00   To be Determined
TBA

5:20   To be Determined
TBA

5:40   PRE-DINNER BREAK

6:00   DINNER

8:00   MEETING ENDS