Track 7
Session A
Student Union (SU 215)
Presiding: Lidia Filus (Mathematics)

9:00 AM  “CHAOS THEORY APPLICATIONS TO SPACE MISSION DESIGN” (PAGE 61) M
Gidea* (Mathematics)

9:40 AM  “DEVELOPING ALGORITHMS IN ALGEBRAIC COMPUTATION” (PAGE 60)
Zhonggang (Zeke) Zeng* (Mathematics)

10:20 AM  “SELF-ASSEMBLY OF NANORODS INTO DESIGNER SUPERSTRUCTURES: THE
ROLE OF TEMPLATING CAPILLARY FORCES, ADHESION AND POLYMER
HYDRATION” (PAGE 53) Stefan Tsonev* (Chemistry), Jacob W. Ciszek (Loyola
University, Chemistry), Ling Huang (School of Chemical and Biomedical Engineering
Nanyang Technological University, Singapore), Yu-Huang Wang (University of
Maryland, College Park, Department of Chemistry and Biochemistry), Kenneth R.
(Northwestern University, Department of Materials Science and Engineering), Mar
Ratner, George C. Schatz, Chad A. Mirkin (Northwestern University, Department of
Chemistry and International Institute of Nanotechnology)

11:00 AM  Break

Session B
Student Union (SU 215)
Presiding: Mary Kimble (Biology)

11:30 AM  “BIOCHEMICAL AND ENVIRONMENTAL APPLICATIONS OF SCANNING PRO
MICROSCOPY” (PAGE 54) Kenneth T. Nicholson* (Chemistry), Max Goldmeier1,
Alexandra Sakols1, Huong Le1, Anna Gawedzka1, Steven M. D. Ryan1, Matthew
Deisinger2, J.J. Mulliken*3, Sunitra Gurung*3, Kristen Veldman1, Jeny Semoon1, Em
Stojkovic*3, Stefan Tsonev1, Aaron Schirmer1, Pamela Geddes1 and Kenneth
Voglesonger3

Departments of Chemistry1, Biology2, and Earth Science3

12:10 PM  “STRUCTURAL AND SEQUENCE ANALYSES OF AN INFRARED FLUORESCENCE
TISSUE MARKER” (PAGE 56) Emina A. Stojkovic* (Biology) and Anna W. Baker
Daniel Salgado, Rachel King, Nicole Wotowich, Carlos Garrido, Wesley Ozarows
Cynthia Hernandez, K.C. Toh#, John T. M. Kennis#

#Biophysics Group, VU University, Amsterdam, the Netherlands
*Department of Biology, Northeastern Illinois University

12:50 PM  “OBJECT RECOGNITION IN PRAYING MANTIDS: THEORY AND APPLICATIO
(PAGE 57) Frederick R. Prete, Justin Komito, Salina Domínguez, Robert Theis, J
Domínguez (Department of Biology)