Tuesday - November 7, 2000
4:00 - 6:00 PM Registration - North Registration Booth - Executive Conference Center

Wednesday - November 8, 2000
7:30 AM Registration

8:30 AM Opening Remarks
Dr. Stephen Michielsen & Dr. Mary Lynn Realf, Conference Co-Chairs
Dr. Prashant Desai, President, The Fiber Society

SESSION I: Fiber Science
Chair: Dr. Prashant Desai, FiberVisions

8:35 AM Session Introduction

8:40 - 9:25 AM MORPHOLOGICAL AND MICRO-STRUCTURAL EFFECTS ON THE OPTICAL AND ELECTRONIC PROPERTIES OF CONJUGATED ORGANIC POLYMERIC FIBERS AND FILMS FOR SMART MATERIAL APPLICATIONS
Richard Gregory, Clemson University

9:25 - 10:10 AM ISSUES & CHALLENGES OF DESIGNING SUTURES FOR ARTHROSCOPIC SURGERY
Xiaoli Li, Martin W. King*, University of Manitoba,
Stephen Michielsen, Georgia Institute of Technology
Dennis Murphy, University of Manitoba
and Peter MacDonald, University of Manitoba and St. Boniface General Hospital

10:10 - 10:30 AM BREAK

10:30 - 11:00 AM NUMERICAL ANALYSIS OF THE NONISOTHERMAL AND VISCOELASTIC FLUID FLOW IN MELT HOLLOW FIBER SPINNING
Junsuo Sun, Fluent, Inc.

11:00 - 11:30 AM STRUCTURE FORMATION DURING DRAWING OF AMORPHOUS-CRYSTALLIZABLE POLYMERS: EVIDENCE FOR A PERCOLATION TRANSITION
David R. Salem, TRI Princeton

11:30 - 12:00 PM APPLICATIONS OF MAGNETIC RESONANCE IMAGING IN FIBER SCIENCE
Johannes Leisen* and Haskell W. Beckham, Georgia Institute of Technology

12:00 - 1:30 PM LUNCH

SESSION II: General Papers
Chairs: Dr. Julie Chen (U Mass Lowell) & Dr. Steve Warner (U Mass Dartmouth)

1:30 PM Session Introduction

1:35 - 2:05 PM AN IMPROVED CONTROLLER FOR RING-SPINNING
Liu Yujun and Chen Ming*, Dong Hua University
2:05 - 2:35 PM CHARACTERISTICS OF 2-Ply Lyocell Air Jet Spinning
Banu Uygun Nergis, Istanbul Technical University

2:35 - 3:05 PM THE RELATIONSHIP OF THE TENSILE STRENGTHS BETWEEN GRAB AND STRIP SPECIMENS OF A FABRIC
Ning Pan, University of California Davis

3:05 - 3:30 PM BREAK

3:30 - 4:00 PM THE EFFECTS OF SPIRALITY ON THE KNITTED FABRIC THICKNESS
Nuray Ucar, Istanbul Technical University

4:00 - 4:30 PM THE EFFECT OF MATRIX SHEAR MODULUS ON KEVLAR/EPOXY INTERFACIAL SHEAR STRENGTH EVALUATED USING SINGLE FIBER PULLOUT FROM A MICROCOMPOSITE TEST
Yiping Qiu* and Yanbo Liu, North Carolina State University

4:30 - 5:00 PM FRICTIONAL PROPERTIES OF STAPLE FIBERS: EVALUATION BY A SIMPLE AND LOGICAL METHOD
S. S. Ramkumar, Texas Tech University

5:00 PM ANNUAL MEMBERSHIP BUSINESS MEETING

Thursday - November 9, 2000

SESSION III: New Analytical Techniques
Chair: Gail Eaton, TRI Princeton

8:30 AM Session Introduction

8:35 - 9:20 AM EXTREME SEM FOR FIBER SCIENCE
Hao Chang* and Edward Boyes, DuPont

9:20 - 10:05 AM CHALLENGES AND OPPORTUNITIES IN THE NEW MILLENIUM IN THE STUDY OF FIBER STRUCTURE USING X-RAY DIFFRACTION
Sanjeeva Murthy, Honeywell

10:05 - 10:25 AM BREAK

10:25 - 11:00 AM RAMAN MICROSPECTROSCOPY - A VERY NEW OLD TECHNIQUE FOR FIBER SCIENCE
Stephen Michielsen, Georgia Institute of Technology

11:10 - 11:55 AM THE CRUCIAL ROLE OF C-RELAXATION DYNAMICS FOR ULTRADRAWABILITY, & THE MULTI-COMPONENT PHASE STRUCTURE OF DRAWN POLYETHYLENE: INSIGHTS FROM 1D AND 2D NMR
K. Schmidt-Rohr*, W.-G. Hu, D. Mowery, Iowa State University

11:55 - 1:30 PM LUNCH

SESSION IV: Student Paper Competition
Chair: Dr. Stephen Michielsen

1:30 - 3:00 PM Student Presentations

2:35 - 3:00 PM BREAK

3:00 - 4:00 PM KEYNOTE ADDRESS
**SESSION V: Poster Session**

4:00 - 6:00 PM POSTER SESSION

6:30 - 7:30 PM RECEPTION

7:30 - 9:30 PM BANQUET AND AWARDS CEREMONY

**Friday - November 10, 2000**

**SESSION VI Modelling in Fiber Assemblies**
Chair: Subash Batra, North Carolina State University

8:30 AM Session Introduction

8:35 - 9:05 AM THERMAL BONDING OF 3D NONWOVEN SHELLS
Z. Dong, R. H. Gong*, and I Porat, University of Manchester Institute of Science and Technology

9:05 - 9:35 AM DISTRIBUTED MODELING OF YARNS AND FABRICS
Mary Lynn Realff, Matthew Realff*, Ashish Shinde, Georgia Institute of Technology and Warren E. Taylor, LHS Communications Systems Inc.

9:35 - 10:05 AM A CONSTITUTIVE MODEL FOR THE EXTENSION OF BLENDED YARNS WITH FRAMENTED LOW-ELONGATION FIBERS
Thomas A. Godfrey*, NATICK Soldier Center and John N. Rossettos, Northeastern University

10:05 - 10:25 AM BREAK

10:25 - 11:00AM EVAPORATIVE DRYING OF FIBROUS MATERIALS
Bernard Miller*, Ilya Tyomkin and Judith Krone, TRI Princeton

11:10 -12:00 PM PREDICTION OF PROPERTIES OF PLANAR NONWOVEN STRUCTURES: HOW FAR CAN WE GO WITH CONTINUUM MODELS?
Han Seong Kim, North Carolina State University
Jeffery Repeant, Ravi Sura, Georgia Institute of Technology
Prashant Desai, FiberVisions, Inc.
Behnam Pourdeyhimi, North Carolina State University and A. S. Abhiraman*, Georgia Institute of Technology

12:00 PM ADJOURN