Monday, October 20, 1997

7:30 am REGISTRATION
8:25 am OPENING REMARKS:
Dr. Behnam Pourdeyhimi, President
Dr. Gajanan Bhat, General Chairman

CHAIRPERSON FOR THE DAY: Gail Eaton

8:30 am SESSION I: FIBERS
Roger Ross, Session Chair

- HIGH SPEED MELT SPINNING OF POLY (L-LACTIC ACID) FILAMENTS
  K. Mezghani & J. Spruiell, University of Tennessee, Knoxville, TN
- STRUCTURE & PROPERTIES OF HIGH PERFORMANCE FIBERS
  PRODUCED FROM WHOLLY AROMATIC POLYMERS
  I. Karacan & N. Shah, UMIST, Manchester, UK
- ULTRA-HIGH MODULUS POLYPROPYLENE FIBERS
  B. L. Deopura & P. Kar, Indian Institute of Technology, Delhi, India

10:15 - 10:35 am BREAK
• A MECHANISM OF FATIGUE FAILURE IN PA6-6 AND PA6 FIBERS
L. Nasvi & A. Lallam, Laboratoire de Physique et Mecanique Textiles, Mulhouse, France
• FIBER FORMING CELLULOSE AND LIGNOCELLULOSE SOLUTIONS
O. Romanoschi, J. C. Collier, I. Negulescu & S. Petrovan, Louisiana State Univ, Baton Rouge
• REAL-TIME X-RAY AND RAMAN STUDIES OF 6,6 NYLON DRAWING
A.D. Kennedy, B.S. Hsiao, R.A. Leach, D.B. Chase, & P. Harney, duPont; B. Chu, SUNY, Stonybrook

12:15 pm LUNCH

1:30 pm SESSION II: NONWOVENS
Ed Engle, Jr., Session Chair

• DEVELOPMENT OF AN INSTRUMENT FOR THE EVALUATION OF BIAXIAL STRESS-STRAIN RESPONSE OF FABRIC
T. Ghosh, Nonwovens Cooperative Res, NCSU, Raleigh, NC.
• NEW DEVELOPMENTS FOR SPUNLACING COTTON
C. Allen, Cotton, Inc., Raleigh, NC

2:40 - 3:00 pm BREAK

• EFFECT OF SOLVENT TREATMENT ON COTTON/CELLULOSE ACETATE NONWOVENS
H.Suh, K.E.Duckett & G.S.Bhat, University of Tennessee, Knoxville, TN
• PROBABILISTIC MODELS FOR THE GEOMETRICAL STRUCTURE OF RANDOM FIBER WEBS
M. W. Suh, H. Chun & J. L. Woo, Nonwovens Cooperative Res, NCSU, Raleigh, NC
• EVALUATION OF NONWOVEN WEB STRUCTURE USING IMAGE ANALYSIS
R. Bresee & Z. Yan, Univ of Tennessee, Knoxville, Tennessee

4:50 pm TRI PRINCETON AWARD

5:00 pm ANNUAL MEMBERSHIP BUSINESS MEETING

6:00 pm RECEPTION

Tuesday, October 21, 1997

CHAIRPERSON FOR THE DAY: Subhash K. Batra

9:00 am SESSION III: TEXTILE MECHANICS
David Brookstein, Session Chair

- THE FUNDAMENTAL DEVELOPMENT OF TOTAL MATERIAL DESIGN SYSTEM FOR WOVEN FABRICS OF APPAREL USE
  M. N. Suresh & T. Matsuo, Kyoto Institute of Technology, Kyoto, Japan
- COMPUTER AIDED ANALYSIS OF LOOM BEATING-UP MECHANISMS
  Y. Wang & H. Sun, Georgia Institute of Technology, Atlanta, GA

10:15 - 10:35 am BREAK

- DEFORMATION OF A SINGLE HELIX UNDER EXTENSION, COMPRESSION AND BENDING
- A NEW HIGH SPEED DYNAMOMETER TO SUBJECT TEXTILE YARNS AT HIGH STRAIN RATES
  J. M. Freyburger, J. Y. Drean & F. A. Marques, Laboratoire de Physique et Mecanique Textiles, Mulhouse, France,
  & M. E. Cabeco Silva, Univ of Minho, Guimaraes, Portugal

11:45 am LUNCH

1:15 pm SESSION IV: STUDENT PAPER COMPETITION

There will be Three Student Papers

2:15 - 2:35 BREAK

2:35 pm SESSION V: COTTON FIBERS & YARNS
Devron Thibodeaux, Session Chair

- COLOR GRADING OF COTTON
  Luo Cheng, Zellweger Uster Inc., Knoxville, TN,
  K. E. Duckett, The University of Tennessee, Knoxville, TN
  & M. D. Watson, Cotton Inc., Raleigh, NC
- TENSILE PROPERTIES OF SLACK COTTON FIBER BUNDLES: THEORIES & APPLICATIONS TO HVI TESTING
  X. Cui, T. A. Calamari, Jr., USDA/ARS, SRRC, New Orleans, LA,
  M. W. Suh and S. K. Batra, NCSU, Raleigh, NC
- COMPARATIVE STUDY OF YARN REGULARITY USING CAPACITIVE AND OPTICAL METHODS
  R. M. Vasconcelos & M. Lima, University of Minho, Guimaraes, Portugal
- IMPACT OF TECHNOLOGY ON YARN QUALITY
  B. Oxenham, NC State University, Raleigh, NC.

5:30 pm POSTER SESSION & RECEPTION
K. E. Duckett, Session Chair

7:30 pm BANQUET & AWARD CEREMONY

After Dinner Speaker:

M. Srinivasarao, N. C. State University: "BIOLOGICALLY INSPIRED DESIGN: COLOR ON WINGS AND SCALES"

Wednesday, October 22, 1997

CHAIRPERSON FOR THE DAY: J. E. Spruiell

8:30 am SESSION VI: GENERAL FIBER & TEXTILE SCIENCE
Geraldine M. Eaton, Session Chair

- GLOBAL CONFORMABILITY TESTING OF FABRICS: A NEW SIMPLIFIED APPROACH
  B. Miller, TRI/Princeton, Princeton, NJ
- RECENT ADVANCES IN THE FIELD OF WETTING AND SPREADING OF SPIN FINISHES ON FIBERS
  E. R. Mathis, Henkel KGaA, Dusseldorf, Germany.
- COMPUTER PREDICTION OF COLOUR SENSITIVITY OF DYE RECIPES

10:20 - 10:40 am BREAK

- POLYMERIC CARBOXYLIC ACIDS AS NONFORMALDEHYDE DURABLE PRESS FINISH FOR COTTON FABRICS
  C.Q. Yang, University of Georgia, Athens, GA.
- A STUDY OF SMOLDERING IN UPHOLSTERY USING THERMAL IMAGING
  S. Gandhi & S. M. Spivak, University of Maryland, College Park, MD
- EFFECT OF ENZYMATIC HYDROLYSIS ON THE LOW-STRESS MECHANICAL BEHAVIOR AND TACTILE QUALITY OF COTTON FABRICS
  P. Radhakrishnaiah, X. Meng, G. Huang & Y. Wang, Georgia Institute of Technology, Atlanta, GA
  & G. Buschle-Diller & W. K. Walsh, Auburn University, Auburn, AL

12:25 pm ADJOURN
Fall 1997 Meeting Program
Knoxville, TN
October 20-22, 1997