

**Minutes of the  
HTD K-20 Committee Meeting on Computational Heat Transfer**

**2005 IMECE  
Orlando, FL  
November 9, 2005**

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Therese Polito called the meeting to order at 9:00 am.

Attending:

N.K. Anand	Malcolm Andrews	Yitung Chen
Al Crosbie	Rod Douglas	Kevin Dowding
Ashley Emery	Roy Hogan	Sean Hsieh
Jerry Jones	Deborah Kaminski	Ben Li
Jayathi Murthy	Darrell Pepper	Therese Polito
Ben Simmons	Lili Zheng	

### **Approval of Previous Minutes**

The minutes of the K-20 committee meeting held at the 2005 Summer Heat Transfer Conference were reviewed and approved.

### **Announcements**

- Therese Polito reminded us that the 13<sup>th</sup> International Heat Transfer Conference will be August 13-18, 2006 in Sydney, Australia. Additional information is available on the conference web site at [www.ihtc-13.com](http://www.ihtc-13.com).
- Darrell Pepper noted that ASME is getting involved in a Water and Energy initiative. As part of this activity, there will be a conference on this topic next May in Las Vegas.
- Therese Polito invited all to the HTD open forum to discuss HTD interests and activities.

### **Recommendations for K-20 Chair and Vice-Chair**

- Therese Polito noted that we have generally recommended the existing Vice-Chair for the position of Chair. She also noted that three people have expressed interest in serving as Vice-Chair for the next term (three years). She reminded us that although the term is three years, the expectation is that this position represents a six-year commitment to the committee due to the rotation process we use. It was decided that we did not have a quorum. We postponed voting until we could determine official committee membership and will conduct an email vote at that time.
- Post-meeting note: An email election was held in December, 2005. The results are that Roy Hogan was selected as Chair and N.K. Anand as Vice-chair.

### **Executive Committee Report**

Rod Douglas reported the following items from the Heat Transfer Division Executive Committee.

- The nomination process for positions in the HTD went is underway. Executive Committee has been soliciting nominations for open positions. Executive committee is seeking nominations from the K-committees.
- The ASME is going ahead with full speed.

- Executive committee has met with Burt Dicht and Tom Laughlin to discuss conference management issues. They stated that meeting management is not a core competency of ASME.
- One perspective is that ASME is downloading work and costs from NY to the divisions.
- Several HTD options in the Continuity & Change Initiative are being considered. Presently we will continue as a Division under the Knowledge & Communities Sector, just as we have in the past. The discussion around the option to join with other BEG Divisions to form an “Engineering Sciences Institute” has decreased for now.
- JHT is now being published monthly. Importance factor now on par with the IJHMT. HTD is looking at creating an “applications focused” journal. Yogi Jaluria is chairing a subcommittee to investigate this option.
- Executive Committee has asked the K-2 Committee to review operation and organization of the HTD to be more responsive and effective in serving our membership. K-2 is asking K-committees to refocus on our primary objectives and look for ways to improve. We need to submit our By-Laws and Mission Statement to Mike Jensen as soon as practical.
- 2005-2006 Executive Committee -- Michael K. Jensen, Chair; Rodney W. Douglass, Vice Chair; Chang H. Oh, Treasurer; Timothy. W. Tong, Member; and R.D. Skocypec, Past Chair.
- Present custodial balance is approximately \$95K.

### **2005 SHTC/InterPak, San Francisco, July 17-22, 2005**

TPR: Christina Amon

KCR: Lili Zheng

Lili reported that we had approximately 120 abstracts, which turned into 87 papers in eight different topics.

### **2005 IMECE, Orlando, FL**

November 5-11, 2005, Walt Disney World Dolphin

TPR: Rod Douglas

KCR: Malcolm Andrews

Malcolm reported that we solicited 55 abstracts, which turned into 38 papers. The sessions marked through below did not make this time. There were some additional session slots that became available near the end. How do we be sure to get K-20 recognition as organizing particular sessions in the program?

Sessions: (we need to coordinate with other K-committees)

- Advances in Computational Heat Transfer I (Li, Jones)
- Advances in Computational Heat Transfer I (Jones, Dowding)
- Multiphase Heat-Mass Transfer and Melting/Solidification in Materials Processing (w/K-15 and FED Multi-phase, Andrews, Hui Zhang)
- ~~● Multigrid Methods and Adaptive Refinement Techniques in Heat Transfer (Vanka, Choudhury)~~
- Computational Heat Transfer in Industrial Applications (Clarksean, Rhodes)
- ~~● Using Math Packages in Numerical Heat Transfer (Popper, Chen)~~
- ~~● Stochastic Radiation (Popper, Kaminski)~~
- Modeling Thermo-mechanical Systems (Chen, Majumdar)
- Verification and Validation Panel (w/FED and PTC 61)
- ?? (Kassab)

## **2006 AIAA/ASME Thermophysics Conference, San Francisco, CA**

9<sup>th</sup> AIAA/ASME Joint Thermophysics and Heat Transfer Conference, June 5-8, 2006, Hyatt Regency San Francisco at Embarcadero Center

TPR: Yogendra Joshi

KCR: Dave Carrington

HTD Executive Committee volunteered us for one tutorial or workshop. We also discussed the possibility of having a commercial software company do a tutorial. There were concerns about the impression of ASME approving particular software companies.

Sessions: (we need to coordinate with other K-committees)

- Advances in Boundary Elements and Meshless Methods (Pepper, Runchal)
- Multigrid Methods and Adaptive Refinement (Kaminski and AIAA rep)
- Applications of Computational Heat Transfer and Thermophysics (Anand, Jones)
- CAE and Virtual Reality in Numerical Heat Transfer (Runchal ... probably scrub)
- Thermal Modeling of HVAC – (Hogan.... Will be an invited talk, Berkley Labs)
- Tutorial on Meshless Methods (Pepper, Zheng, Runchal – 2 session slots)
- Inverse Methods and Optimization (Jones, Dowding)

## **2006 IMECE, Chicago, IL**

November 5-10, 2006, Chicago Hilton and Towers

TPR: Tim Tong

KCR: Debbie Kaminski

Sessions: (we need to coordinate with other K-committees)

Sessions in honor of Suhas Patankar's 65th Birthday:

- Advances in Computational Heat Transfer (Jones, Douglas)
- Panel on History of Computational Heat Transfer (Murthy, ?? )
- Computational Heat Transfer in Material Processing (Zheng, ?? )

Other sessions:

- Inverse Methods and Optimization (Jones, Dowding, Woodbury)
- Stochastic Methods (Emery, Pepper)
- Panel on High Performance Computing (Andrews, ?? )
- Industrial Applications of Computational Heat Transfer (Chen, Anand, Zhang)
- Keynote on Future of Computations in Heat Transfer (??)

## **2007 Summer Heat Transfer Conference, Vancouver, BC**

(joint with ASME/JSME & Interpack), July 8-12, 2007

TPR: Ken Ball

KCR: Kevin Dowding

Sessions: (we need to coordinate with other K-committees)

- Advances in Computational Heat Exchanger Design (??, ??)
- Tutorial on Nano-scale Heat Transfer Modeling (Murthy, ??)
- Computational Heat Transfer in Multiphase Systems (??, ?? )
- Numerical Modeling of Fuel Cells (Zheng, Jones)
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### **Other Topics**

- We need to define just what constitutes “membership” on this committee. Does it include a minimum level of participation in terms of organizing sessions?
- We are trying to locate our By-Laws and Mission Statement, which may help with the question of committee membership. The Long-Range Planning Committee is reviewing makeup of the Division and focus areas of the K-committees.
- How do we be sure to get K-20 recognition as organizing particular sessions in the program?
- We need to remind session organizers to invite authors to K-20 meeting before the conference.
- We need to try to schedule K-20 meeting so that it does not conflict with other K-committee meetings because we have lots of folks with dual memberships.

### **Meeting Adjournment**

The meeting adjourned at approximately 4:00 p.m.

Respectfully submitted,

Roy Hogan