ASME K-20 Committee Meeting Minutes

Minutes at 2001 NHTC, Anaheim

Minutes of the

K-20 Committee Meeting on Computational Heat Transfer

2001 National Heat Transfer Conference

Anaheim, CA

June 11, 2001

The meeting was called to order by Sumanta Acharya at 8:00 am.

Attending:

Sumanta Acharya	Therese Rhodes	Ben Blackwell
Darrell Pepper	Baki Farouk	Pradip Majundar
Milind A. Jog	Jamil Khan	K.T. Yang
Dick Pletcher	Laila Guessous	Al Crosbie
W.J. Minkowycz	Ashley Emery	Robert Spall
G.F. Jones	Aki Runchal	

Approval of Previous Minutes

The minutes of the K-20 committee meeting held at the 2000 IMECE in Orlando, FL were approved.

Sumanta Acharya is unable to attend the K-5 meeting. Jerry Jones will attend on behalf of the K-20 committee.

Executive Committee Report

Larry Witte reported the following from the Heat Transfer Executive Committee:

"Kudos" to K-20 for our action at the IMECE in Orlando. Virtually every K-committee signed off on the January 16th Petition to the Executive Committee of the Heat Transfer Division. Larry presented the petition for attention at the Board of Governors. ASME is responding with a plan which they have not yet shared. In the interim, the HTD is consulting an outside vendor – 3 Dimensions. They will submit a written proposal for the summer meeting in 2003. The HTD plans to ask ASME to bid also.

The Executive Committee wants to fix the summer meeting in June each year.

Nominations are open for various positions. They will be finalized at the IMECE in New York later this year.

There are 213 papers in 52 sessions at the 2001 NHT. Registration for the NHT was up to 209 as of June 9, 2001.

Art Bergles is trying to institute a "Young Investigators Award". He has proposed this award and contributed some funding. This award is designated to help the outstanding winner further their research. The Executive Committee will try to help Art raise the $200,000 required by ASME to endow an award. Art will try to get funds from a variety of sources.

The HTD roster is available on the website. There are approximately 3400 members of the HTD. The list contains about 300 of these members who form the active core group. The roster is coordinated by Russ Skocypec. Send any corrections to Russ at rdskocy@sandia.gov.

Russ Skocypec will conduct the Heat Transfer Introduction Workshop during the IMECE in New York. This is a good opportunity for new HTD members to hear how the HTD is organized, how to run a paper session, etc.

The Executive Committee has secured $50,000 of the required $75,000 for the 3 HT Memorial Awards in Art, Science and General categories ($25,000 per award). This includes $8000 raised from previous award winners. The HTD plans to present only 2 of the 3 awards this year so that on additional costs are incurred.

Conference Cost Discussion

The question of what can be done to reduce conference costs was raised. The following points summarize the subsequent discussion:

Larry Witte is talking with professional conferences organizers, including 3D - who base their charges per head.

ASME charges include 50% overhead. They charged 103 staff days to organize the Pittsburgh conference. We will use 3D as a benchmark.

Costs for this Conference: AIAA members $395 to preregister, $495 to register onsite. This compares with $480 for ASME members to preregister and $530 onsite. AIAA charges are based on a cost per head for each conference. The conference organizers then increase the fee to include receptions, awards, etc. as desired.

The rooms rates are too high for this conference

If we organize a conference without ASME, the HTD will be financially responsible. Currently we only have $19,000 in a custodial fun. The budget for the Pittsburgh conference was $150,000.

In selecting a conference site, the airfare needs to be a consideration as well as hotel costs.

3D has a good track record. They have worked with IEEE twice to organize conferences for 800 people. IEEE made $100,000 on one of the conferences.

Announcements

Future Meeting Dates:

- International Heat Transfer Conference in Grenoble
- Colocated meeting with AIAA Thermophysics meeting
- 2002 IMECE in New Orleans, LA
- National Heat Transfer Conference with AIAA
- 2003 IMECE in Washington, DC
- National Heat Transfer Conference (with AIAA, AICHE). We may collocate or combine with the Fluids Division summer meeting.

Session Policies and Publication

Sumanta Acharya raised the following issues for consideration:

Our sessions are fairly random. Do we want to standardize topics to be offered on a regular basis?

Do we want a General Session for K-20? Should K-5 organize a single General Session and advertise for all HTD?

We need to coordinate better with other K-committes, keeping in mind that our original charter is to supplement, not compete with, other K-committees. Darrell Pepper suggested that Sumanta Acharya talk with other K-chairs regarding their recurring themes to see if we can work with them.

We agreed to consider these issues and further discuss them at the IEMCE meeting in November.

Sumanta Acharya will explore possible copyright issues and will also talk with the Journal of Heat Transfer editor about joint reviews for papers.

Review of Sessions in 2001 NHTC, Anaheim

TPR: Ted Bergman

KCR: Malcolm Andrews

Sessions:

Numerical Methods for Radiation Heat Transfer (Emery, Stefan Thynel, Fiveland with K-12) – 5 abstracts, 3 from 1 author. 2 of the papers were rejected. The remaining 3 papers were distributed to other sessions.

Computation of Multiphase Heat and Mass Transfer (Hochstein, Chang (AIChE), Zhou) – 10 abstracts, 4 papers. Approximately 10 attended the session.

Computational Heat Transfer in Reacting Systems (Jones, Kelly) – 4 abstracts. 4 papers and a kick-off

speaker

Numerical Developments in Turbulent Heat Transfer Modeling (Acharya, Spall) – 8 abstracts. 5 papers with 25 in attendance. This session started 30 minutes late because there was no projector in the room.

Review of Sessions in 2001 IMECE, New York City

TPR: Yogesh Jaluria

KCR: Kevin Dowding

There will be 52 sessions for the HTD, including 7 sessions on November 14th, 25 sessions on November 15th and 20 sessions on November 16th.

Deadlines: Abstracts: January 2001

Final Paper, Forms due to organizers: August 2001

Sessions:

Computational Design for Electronic Cooling (G. Jones, Murthy with K-16) – 2 abstracts received. The papers were moved to a K-16 session

Panel on Building a PC Cluster (Pepper, Douglass, Culbreth) – Panel & workshop. 3 sessions were granted, but only one, three-hour session is requested.

Panel on Heat Transfer Issues in ASCI Program (Fiveland, Blackwell) – must act immediately to keep

Soft Computing in Thermal Systems (Mahajan, Yang, with K-15) – standup, 3 abstracts

Computational Development of Multiphase Transport in Porous Media (Amin, Khan) - ?

Computational Heat Transfer in Electro-Magneto-Hydrodynamics (Dulikravich, Zhang) - ?

Industrial Applications of Computational Heat Transfer (Clarksean, Rhodes) – extended abstracts will be accepted in lieu of full papers at authors' discretion – 12 abstracts, 2 sessions

Inverse Methods (Blackwell, Woodbury, with K-12) – 4 papers

Industrial Applications of Gas Turbine Cooling (Acharya) – 3 abstracts, moved to a K-14 session.

Review of Sessions in 2002 NHTC, Joint with AIAA Thermophysics, St. Louis, MO

TPR: Pinar Manguc

KCR: N.K. Anand

Sessions:

Industrial Applications of Electronic Cooling (Murthy w/ K-16)

Stochastic Heat Transfer (Emery, Pepper)

Benchmark (Heinrich, Rhodes)

Verification Problems for Computational Heat Transfer (Blackwell, Anand)

Computation of Heat Transfer for Biomedical Applications (Zhang w/ K-17)

Computational Developments in Manufacturing and Material Processing (Khan, Andrews, w/ K-15)

Panel on Computational Techniques for Micro/Nano systems (Murthy)

Review of Sessions in 2002 IMECE, New Orleans, LA

TPR: Yildiz Bayazitoglu

KCR: Aki Runchal

Sessions:

High Performance Computing in Thermal Problems (Farouk, Pepper,)

Computational Heat Transfer in Radioactive Waste Management (Culbreth)

Computational Issues in Industrial Combustion (Runchal, Jog)

Numerical Modeling of Turbulent Heat Transfer (Anand, Pletcher)

Parameter Estimation in Thermal Systems (Emery, w/ K-12)

Industrial Applications of Computational Heat Transfer (Clarksean, Rhodes)

Computational Methods for Environmental Heat Transfer (Pepper, Runchal, w/ K-19)

Computational Heat Transfer in Reduced Gravity (Hochstein, w/ K-12)

Computational Heat Transfer in Smart Systems (Jones)

Review of Sessions in 2003 NHTC

TPR: Van Carey

KCR:

Sessions:

Radiation Heat Transfer (Emery, Thynell w/ K-8)

Inverse Methods (Dulikravich, Blackwell)

Computational Techniques in Bio Heat Transfer (Runchal – w/ K-17)

Computational Techniques for Micro/Nano Systems (Murthy)

Computational Advances in Free and Forced Convection (Spall, Guessous)

Other Discussion

None.

Meeting Adjournment

The Meeting adjourned at 9:55 a.m.

Respectfully submitted,

Therese Rhodes

K-20 Vice-Chair

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