ASME K-20 Committee Meeting Minutes

Minutes at 1998 IMECE, Anaheim

ASME-IMECE 98

Dallas, Texas

Minutes of the K-20 Computational Heat Transfer Committee Meeting

submitted by Sumanta Acharya

General Anouncements

- Minutes of the 1998 NHTC meeting approved.
- Satellite broadcast sessions by Pepper/Chopin successful with first broadcast to 8 sites and the second broadcast to 15 sites. ASME wants two more of these, one on turbulence models, and the other on validation and verification of codes.
- Discussion on the enforcement by ASME-JHT on the assessment of numerical uncertainties led to the recommendation that K-20 submit a letter to JHT on this issue. Also a subcommittee (Aki Runchal, Graham deVahl Davis, and Foluso Ladeinde) was formed to examine this issue and report to the K-20 in 1 year's time.

1. Executive Committee Report (delivered by Woody Fiveland):

   a) ASME has up to $50,000 available for niche technology program(s). Contact Erwin Weinberg at ASME for more information.

b) The 2001 NHT will be colocated with the AIAA HT and Thermophysics conference. The conference is tentatively scheduled for June, 2001.

c) ASME is interested in sponsoring web-based conferences. Contact Ralph Nelson for more information.

d) HTD division roster is on the web. Call Yogesh Jaluria at Rutgers if you want your name removed. The address is http://saturn.rutgers.edu/~jaluria/roster.html

e) Two issues (or areas of concern) were raised by K20 to Woody, representing the Executive Commitee. They are:

i) Two years to get a paper published is too long.

ii) There are too many papers in a session. Sometimes only 14 minutes/paper is allowed. Also, the authors don't always know a priori how long they will have to present. There should be a fixed length for each paper.

This will allow authors to know how long a presentation to plan for. It will also allow all the concurrent sessions to run on the same schedule, allowing attendees to "session hop".

2. Report by Ralph Nelson

Ralph Nelson reported that sessions are distributed at the IMECE based on an historical basis. For the 99 IMECE, the HT division gets 34 sessions, plus highlight sessions - for a total of approximately 40 sessions. The number of papers per session is up to the session chair. We should consider poster sessions for overflow of papers from standup sessions - rather than cramming 5-6 papers into one session.

3. Review of sessions at 1998 IMECE (Anaheim, November 15-20, 1998) TPR, Ralph Nelson KCR, Therese Chopin

a) What is the future of Verification/Validation of Computational Heat Transfer Software (Chopin): well attended by 60 people

b) Algorithm Developments in Computational Heat Transfer and Fluid Flow (Archarya/Douglass): 11 abstracts, 7 papers, 6 accepted.

c) Applications of CHT Software (Douglass/Huang): did not make

d) Finite Element Methods in Heat Transfer (Chopin/Heinrich) -did not make

e) Multidisciplinary Inverse and Optimization in Heat Transfer K-20 and K-12, (Dulikravich /Amon / Woodbury/ Blackwell): 14 papers, 3 sessions

4. 1999 NHTC, Albuquerque, NM, August 15-17, Hyatt Regency Hotel TPR, Mike Jensen KCR, Randy Clarksean

a) Industrial Applications of Computational Heat Transfer (Clarksean/Brueckner): 7 abstracts

b) Error Estimators for Computational Heat Transfer Software (Cochran/Ladeinde): did not make

c) Finite and Boundary Element Methods in Heat Transfer (Emery/Pepper): did not make

d) Numerical Implementation of Radiation Heat Transfer (Fiveland/Burns): 6 abstracts

e) Advances in Computational Heat Transfer (Acharya/Douglass): 5 abstracts

f) Numerical Methods for Porous Media (Khan/other K committees): 5 abstracts

g) Adaptive Gridding of Phase Change Problems (joint with K-12, K-19): did not make

5. 1999 IMECE, Nashville, TN November 14-19 TPR, Larry Witte KCR, Therese Chopin

a) Parallel Computing in Thermal-Fluid Phenomena (Douglass) with Applied Mechanics Division/Fluids Committee

b) Industrial Applications of CHT (Clarksean/Brueckner)

c) Computational Methods in Materials Processing (Andrews and K-15)

d) Numerical Simulation of Turbulent Flow and Heat Transfer (Pletcher/Haji-Sheikh/N.K. Anand K-12)

e) Benchmarking CHT Codes (Heinrich/S.P. Vanka/Cochran)

f) Panel on Industry/Government/University Interactions in CHT (Emery/ Clarksean)

6. 2000 NHTC, Pittsburgh, PA TPR, TBD KCR, Jamil Khan

a) Modeling Microscale Heat Transfer (Emery, K-8, K-16)

b) Inverse Thermal Problems (Dulikravich, Woodbury, Blackwell)

c) Use of Computational Heat Transfer for Design (Jones)

d) Panel on High Performance Computing (Pepper, Douglass, Heinrich)

e) Conjugate Heat Transfer (Amin, Dulikravich)

f) Computational Heat Transfer Problems in Combustion (Runchal, Jog, Andrews)

7. 2000 IMECE TPR, Jong Kim KCR, Umesh Chandra

a) Tutorial/Panel (drawn from ASME's sattelite broadcast in March, '98) (Chopin/Cochran/Ruchal)

b) Computational Developments in Manufacutring and Materials Processions (Andrews/Kahn, K15)

c) Numerical Simulaltions of Turbulent Heat Transfer (Amin, Ladeinde)

d) Computational Geometry and Mesh Generation (Douglass)

e) Meshless Methods (Dulikravich)

f) Industrial Applications of Computational Heat Transfer (Chopin, Runchal)

8. 2001 NHTC: TPR: TBD KCR: Kevin Dowding

9. Other Anouncements

Graham de vahl Davis announced that the 2001 Symposium on Advances in Computational Heat Transfer sponsored by the International Center of Heat and Mass Transfer will be held in May, 2001 in Queensland, Australia.

Therese Chopin reported that the Joint Benchmarking Committee (with the Fluids Divison) met at the 97 IMECE and agreed to sponsor a joint benchmarking session. However, no benchmark problems were received by the June, 98 deadline. She asked for feedback from the K-20 committee concerning continued benchmarking efforts. The group agreed that K-20 should sponsor benchmarking discussions, problems, etc. Darrell Pepper, Bob Cochran, Juan Heinrich, Therese Chopin, and Aki Runchal agreed to form a benchmarking subcommittee.

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