ASME International

ASME K-20 Committee Meeting Minutes

Minutes at 1998 THTC, Albuquerque

K-20 Committee on Computational Heat Transfer
1998 Thermophysics and Heat Transfer Conference
Albuquerque, NM, June 15-17, 1998

Minutes of the K-20 Computational Heat Transfer Committee Meeting June 14, 1998, 7:00 pm, submitted by Randy Clarksean with additions by Ben Blackwell.

Present: Blackwell, Brueckner, Clarksean, Cochran, Dowding, Emery, Pepper, Crosbie

Committee Members were introduced. Minutes of meeting at the 1997 IMECE, Dallas were approved with no changes.

Reports/Announcements

1. Executive Committee: No one was present to give a report.
2. Satellite broadcast of short courses--Reported by D. Pepper

   Two satellite broadcast courses have been presented from the University of MD.

   In March, "Commercial Codes: To Buy or Not to Buy" was presented by Aki Runchal, Ashok Singhal, Therese Chopin, and Bob Cochran with Darrell Pepper moderating. A total of 8 sites hosted the broadcast. Support for the broadcast was supplied by four different companies - Sandia National Laboratories, ACRi, ANSYS, and CFD Research. This was the 32nd broadcast sponsored by ASME.

In April, "Numerical Modeling of Radiation" was presented by Jack Howell, Tim Tong, Ashley Emery, and Woody Fiveland with moderation by Darrell Pepper. This broadcast, sponsored by Babcock and Wilcox, was linked to 15 sites around the country. (note: Ellen Lung left ASME after this broadcast). The length of each presentation was approximately 20 minutes per speaker (total of four speakers per broadcast, plus moderator). In addition, two 20 minute panel (Q&A) sessions were held at the middle and near the end of the broadcasts.

At the time of the K20 meeting, there was no indication if any of the proceeds from these broadcasts had been returned to the HTD or specifically the K20 committee. There was a lengthy discussion on the satellite broadcasts. Comments included:

A. The length of the presentations was only 20 minutes and this was felt to be insufficient to adequately cover the necessary material.
B. There was limited audience participation from satellite sites.
C. ASME had outdated software that caused problems for some of the presenters in preparing their presentation materials.
D. The presenters indicated it was difficult to get quick and reliable answers from ASME staff in preparing for the broadcasts.
E. It is important that presenters get their material in on time because in some instances duplication of effort was found at the last minute.
F. Only 3 hrs of actual lecture time existed for the total broadcast. It is recommended that speakers meet in advance to better prepare (2-4 weeks in advance) for their presentations. ASME resists spending the extra funds for additional meetings.

Additional broadcasts under consideration by the K-20 committee and ASME include (1) Application of FEM Methods, (2) Turbulence Modeling, and (3) Validation and Verification of CFD Models.

3. Web Page

Not a lot of progress was made on the K20 Web Pages. Clarksean will make an effort to work on this. John Hochstein had volunteered earlier to contribute to this effort.

4. KCR Replacement for 99 IMECE

T. Chopin advised that another individual be found to assume the 1999 IMECE KCR duties. No volunteer was found at this meeting.

5. Review of sessions at 1998 Thermophysics/Heat Transfer (Albuquerque, June 15-18)
TPR, Bassem Armaly
KCR, George Vradis.
   1. Uncertainty Analysis in Computational Heat Transfer (Emery/Woodbury/Blackwell, jointly with w/K-12): 7 abstracts, 7 papers accepted.
   2. Visualization Methods (Hanson/Douglass) did not make
   3. High Performance Computing Panel (Pepper ?)
6. Planning for Future Sessions
   A. 1998 IMECE (Anaheim, November 15-20, 1998)
   TPR, Ralph Nelson
   KCR, Therese Chopin
      1. What is the future of Verification/Validation of Computational Heat Transfer Software (Chopin)- Panel Session (being planned)
      2. Algorithm Developments in Computational Heat Transfer and Fluid Flow (Archarya/Douglass) 11 abstracts, 7 papers, 6 accepted.
      3. Applications of CHT Software (Douglass/Huang): no report
      4. Finite Element Methods in Heat Transfer (Chopin/Heinrich) - no report
      5. Multidisciplinary Inverse and Optimization in Heat Transfer K-20 and K-12,

(Dulikravich /Amon / Woodbury/ Blackwell): 12 papers

B. 1999 NHTC, Albuquerque, NM, August 15-17, Hyatt Regency Hotel
TPR, Mike Jensen
KCR, Randy Clarksean
   1. Industrial Applications of Computational Heat Transfer (Clarksean/Brueckner).
   2. Error Estimators for Computational Heat Transfer Software (Cochran/Ladeinde)
   3. Finite and Boundary Element Methods in Heat Transfer (Emery/Pepper).
   4. Numerical Implementation of Radiation Heat Transfer (Fiveland/Burns)
   5. Advances in Computational Heat Transfer (Acharya/Douglass)
   6. Numerical Methods for Porous Media (Khan/other K committees)
   7. Adaptive Gridding of Phase Change Problems (joint with K-12, K-19)

It was recommended that a Call for Papers be issued for all K20 sessions. The KCR was charged with this duty. The KCR was to develop a Call for Papers that could be used in the ME Magazine and one to be distributed by Ashley Emery to the HTD email list.

C. 1999 IMECE, Nashville, TN November 14-19
TPR, Larry Witte
KCR, TBD
   1. Parallel Computing in Thermal-Fluid Phenomena (Douglass) with Applied Mechanics Division/Fluids Committee
   2. Industrial Applications of CHT (Clarksean/Brueckner)
   3. Computational Methods in Materials Processing (Andrews and K-15)
   4. Numerical Simulation of Turbulent Flow and Heat Transfer (Pletcher/Haji-Sheikh/N.K. Anand K-12)
   5. Benchmarking CHT Codes (Heinrich/S.P. Vanka/Cochran)
   6. Panel on Industry/Government/University Interactions in CHT (Emery/ Clarksean)

D. 2000 NHTC
TPR, TBD
KCR, TBD
   1. Modeling Microscale Heat Transfer (Emery, K-8, K-16)
   2. Inverse Thermal Problems (Dulikravich, Woodbury, Blackwell)
   3. Use of Computational Heat Transfer for Design (?)
   4. High Performance Computing (?)

E. 2000 IMECE
TPR, TBD
KCR, Umesh Chandra
   1. Tutorial/Panel Discussion in conjunction with Open Forum for Industrial Participants

7. Other Business:

The meeting closed with a lengthy discussion on increasing industry participation and possible ways to increase their participation. Ideas included holding a panel session or low cost seminar on analyzing thermal systems or the use of computational heat transfer codes. The intent of such an effort would be to encourage people from industry, particularly more BS level people, to attend an upcoming meeting. In addition, ideas to increase their submittal of technical papers were discussed.

Return to top

RETURN to K-20 Committee Homepage

RETURN to K-20 Minutes page