

# Schedule

- 2:00 – 3:20 pm Welcome and Efforts on Member Stability
- 3:30 – 4:50 pm Efforts on Frame and System Stability
- 5:05 – 6:20 pm Education, International Collaboration, and Emerging Areas
- 6:20 – 6:40 pm SSRC Annual Business Meeting
- 6:40 – 8:00 pm Social Hour



# Education, International Collaboration, and Emerging Areas

## Session Chair, Dinar Camotim

- Education and Outreach - Todd Helwig
  - Existing efforts
  - Discussion of new efforts and needs
- International Collaboration - Dinar Camotim
  - Report from TG 11 International Coop. of Stability Studies
  - 2010 International Colloquium on Stability and Ductility of Steel Structures Rio de Janeiro, Brazil
  - Discussion of new efforts and needs
- Emerging Areas - Donald White
  - Discussion of new efforts and needs



# Education and Outreach

Short courses:

- Bracing for Stability

Originally presented in 1995 and presented at NASCC. Since has been presented in more than 40 cities and attended by more than 4000 engineers.

- Basic Design for Stability: Part 1 Columns and Frames – Developed by Joe Yura, Ted Galambos, Perry Green, and Todd Helwig. Originally presented in 2003 and was presented in over 20 cities.

*note from B. Schafer – T. Helwig then lead a discussion on how SSRC should go forward with short courses and the challenges thereof, contributions from many members.*



# International Collaboration

*minutes from B. Schafer*

- D. Camotim reviewed activities
- The group was challenged to develop topics/mini-symposia directed on issues of world-wide stability interest
- D. Camotim reminded us that with this yearly conf. we could over time leverage a really nice sequence of symposia in a focused fashion
- Building on Yura's comments that a little passion and "fights" are good for us all, suggested International 'fights' might be good too.



# Emerging Areas

*minutes by B. Schafer*

D. White listed out several areas of interest

1. Analysis procedures
2. Generalized design concepts
3. Better members
4. Systems in combinations with members
5. Innovative use of materials

Under analysis he discussed GBT and higher order beam theories and challenged the group to think about how to go further

He discussed the work on cross-section design for slenderness and the need to integrate these methods across all of metals

System 2<sup>nd</sup> order 3D analysis was discussed

B. Schafer challenged the group to go beyond beam elements

A. Surovek challenged the group to think about nonstructural elements



# Emerging Areas

*minutes by B. Schafer (continued)*

Fire engineering as an emerging analysis area was discussed

Incremental dynamic analysis and seismic stability issues were discussed

Interactive buckling remains a rich area with needs

Innovative structural members like tube flanged girders need more examination. Similar for corrugated webs and other innovations

Analysis was then discussed in some greater detail

warping free vs. fixed an issue for commercial analysis

lots of procedures, what should be in a Spec?

Innovations in structural systems was discussed

Energy dissipating devices...

Metallic foams...

Composites and FRP applications in metals...

Mixed metals...

D. Camotim (session chair) urged the group to really think harder about emerging areas as opposed to technology transfer...

