

# 1st International Workshop on High-Order CFD Methods

Sponsored by Fluid Dynamics TC, AFOSR and DLR

Room Jackson E&F

Jan. 7, 2012

## C1.1 Internal inviscid flow over a smooth bump - Chaired by Z.J. Wang

8:30:00 AM **Opening**

8:35:00 AM R. Abgrall INRIA & University of Bordeaux

8:40:00 AM J.-B. Chapelier, S. Gerald, F. Renac, M. d. I. L. PI ONERA

8:50:00 AM M. Yano, J. Andren, and D. Darmofal MIT

9:00:00 AM S. Khosravi and K. Fidkowski Michigan

9:10:00 AM M Galbraith, P.D. Orkwis and J.A. Benek Univ. of Cincinnati and AFRL

9:20:00 AM H.T. Huynh NASA Glenn

9:30:00 AM D.A. Kopriva and G.B. Jacobs Florida State Univ. and San Diego State Univ.

9:40:00 AM C. Ollivier-Gooch UBC

9:50:00 AM E. van der Weide and M. Svard Univ. of Twente and University of Edinburgh

10:00:00 AM P. Trontin ONERA

10:10:00 AM L. Wang, W. K. Anderson and J. T. Erwin University of Tennessee at Chattanooga

10:20:00 AM Y. Li and Z.J. Wang Iowa State Univ.

10:30:00 AM Case Summary

10:40:00 AM **Coffee Break**

## C1.2 Transonic Ringleb flow - Chaired by H.T. Huynh

10:55:00 AM H.T. Huynh NASA Glenn

11:05:00 AM M. Yano, J. Andren, and D. Darmofal MIT

11:15:00 AM S. Khosravi and K. Fidkowski Michigan

11:25:00 AM M Galbraith, P.D. Orkwis and J.A. Benek Univ. of Cincinnati and AFRL

11:35:00 AM C. Ollivier-Gooch UBC

11:45:00 AM E. van der Weide and M. Svard Univ. of Twente and University of Edinburgh

11:55:00 AM C. Zhou and Z.J. Wang Iowa State Univ.

12:05:00 PM Case Summary

12:15:00 PM **Lunch Break**

## C1.3 Flow over the NACA0012 airfoil - Chaired by G. May

1:40:00 PM R. Hartmann DLR

1:50:00 PM J.-B. Chapelier, S. Gerald, F. Renac, M. d. I. L. PI ONERA

2:00:00 PM M. Yano, J. Andren, and D. Darmofal MIT

2:10:00 PM K. Fidkowski Michigan

2:20:00 PM D.A. Kopriva and G.B. Jacobs Florida State Univ. and San Diego State Univ.

2:30:00 PM N. Burgess and D. Mavriplis University of Wyoming

2:40:00 PM C. Ollivier-Gooch UBC

2:50:00 PM E. van der Weide and M. Svard Univ. of Twente and University of Edinburgh

3:00:00 PM C. Zhou and Z.J. Wang Iowa State Univ.

3:10:00 PM Case Summary

## C1.4 Flat plate boundary layer - Chaired by F. Bassi

3:20:00 PM J. Dahm and K. Fidkowski Michigan

3:30:00 PM F. Bassi Bergamo

3:40:00 PM J.-B. Chapelier, S. Gerald, F. Renac, M. d. I. L. PI ONERA

3:50:00 PM M. Yano, J. Andren, and D. Darmofal MIT  
 4:00:00 PM D.A. Kopriva and G.B. Jacobs Florida State Univ. and San Diego State Univ.  
 4:10:00 PM Q. Li, K. Xu & S. Fu Tsinghua University and Hong Kong Univ. of Sci  
 4:20:00 PM Case Summary  
 4:30:00 PM **Coffee Break**

C1.5 **Radial expansion wave - Chaired by B. van Leer**

4:45:00 PM S. Varadan, K. Hara, E. Johnsen, B. Van Leer Michigan  
 4:55:00 PM S. Khosravi and K. Fidkowski Michigan  
 5:05:00 PM M Galbraith, P.D. Orkwis and J.A. Benek Univ. of Cincinnati and AFRL  
 5:15:00 PM G. J. Gassner and A. D. Beck University of Stuttgart  
 5:25:00 PM N. Burgess and D. Mavriplis University of Wyoming  
 5:35:00 PM C. Zhou and Z.J. Wang Iowa State Univ.  
 5:45:00 PM Case Summary

C1.6 **Vortex transport by uniform flow - Chaired by D. Caraeni**

5:55:00 PM K. Fidkowski Michigan  
 6:05:00 PM F. Bassi Bergamo  
 6:15:00 PM S. Tu , Q. Pang and H. Xiang Jackson State Univ.  
 6:25:00 PM Y. Li and Z.J. Wang Iowa State Univ.  
 6:35:00 PM Case Summary

**Jan. 8, 2012**

C2.1 **Unsteady viscous flow over tandem NACA0012 airfoils - Chaired by Z.J. Wang**

8:30:00 AM S. E. Sherer and M.R. Visbal AFRL  
 8:40:00 AM K. Kontzialis and J.A. Ekaterinaris University of Patras  
 8:50:00 AM N. Burgess and D. Mavriplis University of Wyoming  
 9:00:00 AM Case Summary

C2.2 **Turbulent flow over a RAE airfoil - Chaired by K. Fidkowski**

9:10:00 AM K. Fidkowski Michigan  
 9:20:00 AM M. Yano, J. Andren, and D. Darmofal MIT  
 9:30:00 AM F. Bassi Bergamo  
 9:40:00 AM Case Summary

C2.3 **Analytical 3D body of revolution - Chaired by R. Hartmann**

9:50:00 AM R. Hartmann DLR  
 10:00:00 AM K. Fidkowski Michigan  
 10:10:00 AM Case Summary  
 10:20:00 AM **Coffee Break**

C2.4 **Delta wing at low Reynolds number - Chaired by R. Hartmann**

10:35:00 AM R. Hartmann DLR  
 10:45:00 AM F. Bassi Bergamo  
 10:55:00 AM M. Ceze and K. Fidkowski Michigan  
 11:05:00 AM L. Wang, W. K. Anderson and J. T. Erwin University of Tennessee at Chattanooga  
 11:15:00 AM Case Summary

C3.1 **Turbulent flow over a multi-element airfoil - Chaired by K. Fidkowski**

11:25:00 AM K. Fidkowski Michigan  
 11:35:00 AM M. Yano, J. Andren, and D. Darmofal MIT  
 11:45:00 AM F. Bassi Bergamo

11:55:00 AM N. Burgess and D. Mavriplis University of Wyoming  
12:05:00 PM Case Summary  
12:15:00 PM **Lunch Break**

C3.3 **Transitional flow over a SD7003 wing - Chaired by M. Visbal**

1:40:00 PM D. J. Garmann and M. R. Visbal AFRL  
1:50:00 PM K. Hillewaert Cenaero  
2:00:00 PM B. Zimmerman and Z.J. Wang Iowa State University  
2:10:00 PM Case Summary

C3.4 **2D laminar flapping wing case - Chaired by P. Persson**

2:20:00 PM P. Persson Berkeley  
2:30:00 PM S. Kast and K. Fidkowski Michigan  
2:40:00 PM C. Liang and J. Wang George Washington University  
2:50:00 PM Case Summary  
3:00:00 PM **Coffee Break**

C3.5 **DNS of the Taylor-Green Vortex at  $Re = 1600$  - Chaired by K. Jillewaert**

3:15:00 PM K. Hillewaert Cenaero  
3:25:00 PM J.-B. Chapelier, S. Gerald, F. Renac, M. d. I. L. PI ONERA  
3:35:00 PM J. R. DeBonis NASA Glenn  
3:45:00 PM J.-M. Le Gouez ONERA  
3:55:00 PM A. D. Beck, G.J. Gassner University of Stuttgart  
4:05:00 PM S. Varadan, K. Hara, E. Johnsen, B. Van Leer Michigan  
4:15:00 PM T. Haga and Z.J. Wang Iowa State University  
4:25:00 PM Case Summary

4:35:00 PM **Panel Discussions**

6:00pm End