8th IWPCTM Program Schedule
(all Oral Sessions are held in the Beckman Institute Auditorium)

Time	Monday 12/10/2001	Tuesday 12/11/2001	Wednesday 12/12/2001	Thursday 12/13/2001	Friday 12/14/2001
8:15-8:30	**Welcome and Opening Remarks: S. Koonin/O. Schilling**	**Announcements: O. Schilling**	**Announcements: O. Schilling**	**Announcements: O. Schilling**	**Announcements: O. Schilling**
	Experimental Session I Chair: *H. F. Robey* *(Lawrence Livermore National Laboratory)*	**Experimental Session V Chair: *T. A. Peyser* *(Lawrence Livermore National Laboratory)***	**Computational Session III Chair: *J. Glimm* *(State University of New York, Stony Brook)***	**Theoretical Session I Chair: *D. I. Meiron* *(California Institute of Technology)***	**Theoretical Session V Chair: *D. Shvarts* *(Ben Gurion University)***
8:30-9:30	Review Talk: A Review on RT and RM Instability and TM Experiments *J.-F. Haas and S. G. Zaytsev* *(Comissariat à l'Energie Atomique and Krzhizhanovsky Power Engineering Institute)*	Review Talk: The Experimental Study of Excitation and Development of the Hydrodynamic Instability in the Mixing Zone Separating Gases of Different Densities at their Accelerated Motion *S. G. Zaytsev* *(Krzhizhanovsky Power Engineering Institute)*	Review Talk: Review of Numerical Simulation of Mixing due to Rayleigh-Taylor and Richtmyer-Meshkov Instabilities *D. L. Youngs* *(Atomic Weapons Establishment)*	Review Talk: Modeling Late-Time Nonlinear Evolution of Hydrodynamic Instabilities and their Role in Inertial Confinement Fusion *D. Shvarts* *(Ben-Gurion University, Nuclear Research Center, Negev)*	8:30-8:50 Rayleigh-Taylor Instability in Compressible Fluids (C12) *Y. Elbaz , A. Rikanati, D. Oron, and D. Shvarts* *(Nuclear Research Center Negev, Ben Gurion University, and Weizmann Institute of Science)* 8:50-9:10 A Model for Instability Growth in Accelerated Solid Metals (T9) *J. D. Colvin , M. Legrand, B. A. Remington, G. Schurtz, and S. V. Weber* *(Lawrence Livermore National Laboratory and Comissariat à l'Energie Atomique)* 9:10-9:30 Toy Models for the Growth Rate of Rayleigh-Taylor Instability (T10) *S. B. Dalziel* *(University of Cambridge)*

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9:30-9:50	The Influence of Scaling for Periodical Perturbations on Development of Turbulent Mixing on a Gas-Liquid Interface (E7) *M. Bliznetsov , E. Meshkov, N. Nevmerzhitsky, A. Nikulin, E. Sen'kovsky, and E. Sotskov (Russian Federal Nuclear Center-VNIIEF)*	Compressible Hydrodynamics on the Omega Laser, Motivated by Astrophysics (E10) *R. P. Drake , P. Keiter, K. E. Korreck, K. Dannenberg, H. F. Robey, T. Perry, J. O. Kane, B. A. Remington, R. J. Wallace, O. A. Hurricane, D. D. Ryutov, J. Knauer, R. Teyssier, A. Calder, R. Rosner, B. Fryxell, D. Arnett, Y. Zhang, J. Glimm, N. Turner, J. Stone, R. McCray, and J. Grove (University of Michigan, Lawrence Livermore National Laboratory, University of Rochester, Laboratory for Laser Energetics, Comissariat à l'Energie Atomique, University of Chicago, University of Arizona, State University of New York, Stony Brook, University of Maryland, University of Colorado, and Los Alamos National Laboratory)*	Three Dimensional Multi-Mode Rayleigh-Taylor and Richtmyer-Meshkov Instabilities at All Density Ratios (T14) *D. Kartoon , D. Oron, L. Arazi, A. Rikanati, U. Alon, and D. Shvarts (Nuclear Research Center, Negev, Ben-Gurion University, Tel-Aviv University, and Weizmann Institute)*	Theoretical Methods for Determination of Mix (T7) *B. Cheng, J. Glimm , and D. H. Sharp (Los Alamos National Laboratory, State University of New York, Stony Brook, and Brookhaven National Laboratory)*	Spherical Combustion Layer in a TNT Explosion (T37) *A. L. Kuhl and R. E. Ferguson (Lawrence Livermore National Laboratory and Krispin Technologies)*
9:50-10:10	Experimental Study Into Rayleigh-Taylor Turbulent Mixing Zone Heterogeneous Structure (E31) *Yu. A. Kucherenko, A. P. Pylaev , V. D. Murzakov, A. V. Belomestnih, V. N. Popov, and A. A. Tyaktev (Russian Federal Nuclear Center-VNIITF)*	Improvements to Convergent Cylindrical Plasma Mix Experiments Using Laser Direct Drive (E4) *C. W. Barnes , S. H. Batha, A. M. Dunne, N. E. Lanier, G. R. Magelssen, T. J. Murphy, K. W. Parker, S. Rothman, J. M. Scott, and D. Youngs (Los Alamos National Laboratory and Atomic Weapons Establishment)*	Application of a Laser Shock Tube for the Study of Supersonic Gas Flows and the Development of Hydrodynamic Instabilities in Layered Media (C25) *I. G. Lebo and V. D. Zvorykin (Technical University MIREA and P. N. Lebedev Physical Institute)*	Effects of High Initial Amplitudes and High Mach Numbers on the Evolution of the RM Instability: I. Theoretical Study (T23) *A. Rikanati , D. Oron, O. Sadot, and D. Shvarts (Nuclear Research Center, Negev and Ben-Gurion University)*	3D Rayleigh-Taylor and Richtmyer-Meshkov Single -Modes (T12) *N. A. Inogamov , A. M. Oparin, M. Tricottet, and S. Bouquet (Landau Institute for Theoretical Physics, Institute for Computer Aided Design, and Commissariat à l'Energie Atomique)*

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10:10-10:30	Rayleigh-Taylor Instability at a Tilted Interface in Incompressible Laboratory Experiments and Compressible Numerical Simulations (E14) *J. M. Holford , S. B. Dalziel, and D. L. Youngs* *(University of Cambridge and Atomic Weapons Establishment)*	The Interaction of Supernova Blast Waves with Interstellar Clouds: Experiments on the OMEGA Laser (E42) *R. I. Klein , H. Robey, T. Perry, and J. Greenough* *(Lawrence Livermore National Laboratory and University of California, Berkeley)*	Shock-Planar Curtain Interactions: Strong Secondary Baroclinic Deposition and the Emergence of Coherent and Random Vortex Projectiles (VPs) and Decaying Stratified Turbulence (C48) *S. Zhang and N. J. Zabusky* *(State University of New Jersey, Rutgers)*	Transition Stages of Rayleigh-Taylor Instability Between Miscible Fluids (C56) *A. W. Cook and P. E. Dimotakis* *(Lawrence Livermore National Laboratory and California Institute of Technology)*	Modeling Radiation Effects in Mixing Layers (T8) *T. Clark and F. H. Harlow* *(Los Alamos National Laboratory)*
10:30-10:50	**Break**	**Break**	**Break**	**Break**	**Break**
	Experimental Session II **Chair: *J.-F. Haas*** ***(Commissariat à l'Energie Atomique)***	**Experimental Session VI** **Chair: *G. Dimonte*** ***(Lawrence Livermore National Laboratory)***	**Computational Session IV** **Chair: *J. Grove*** ***(Los Alamos National Laboratory)***	**Theoretical Session II** **Chair: *S. B. Dalziel*** ***(Cambridge University)***	**Theoretical Session VI** **Chair: *O. Schilling*** ***(Lawrence Livermore National Laboratory)***
10:50-11:10	Measurements of Turbulence Correlations in Low Atwood Number Rayleigh-Taylor Mixing (E32) *P. Ramaprabhu and M. J. Andrews* *(Texas A & M University)*	An Experimental Study of the Effect of Shock Proximity on the Richtmyer-Meshkov Instability at High Mach Number (E12) *S. G. Glendinning , D. G. Braun, M. J. Edwards, W. W. Hsing, B. F. Lasinski, H. Louis, J. Moreno, T. A. Peyser, B. A. Remington, H. F. Robey, E. J. Turano, C. P. Verdon, and Y. Zhou* *(Lawrence Livermore National Laboratory)*	One-Dimensional Simulation of the Effects of Unstable Mix on Neutron and Charged-Particle Yield from Laser-Driven Implosion Experiments (C13) *R. Epstein , J. A. Delettrez, V. Yu. Glebov, V. N. Goncharov, P. W. McKenty, P. B. Radha, S. Skupsky, V. A. Smalyuk, and C. Stoeckl* *(University of Rochester, Laboratory for Laser Engineering)*	Spectral Analysis of Turbulent Flows Induced by RT and RM Instabilities (T38) *V. F. Tishkin and N. V. Zmitrenko* *(Institute for Mathematical Modeling, Russian Academy of Sciences)*	Large- and Small-Scale Dynamics of Variable-Density Rayleigh-Taylor Instability-Induced Turbulent Mixing (T28) *O. Schilling and A. W. Cook* *(Lawrence Livermore National Laboratory)*

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11:10-11:30	Experimental Investigations of the Self-Similar Mixing Mode of Different Density Gases in the Earth's Gravitational Field (E28) *Yu. A. Kucherenko, O. E. Shestachenko , Yu. A. Puskunov, E. V. Sviridov, V. M. Medvedev, and A. I. Baishev (Russian Federal Nuclear Center - VNIITF)*	A Vortex Model for Studying the Effect of Shock Proximity on Richtmyer-Meshkov Instability at High Mach Number (E46) *H. F. Robey and S. G. Glendinning (Lawrence Livermore National Laboratory)*	Modeling Turbulent Mixing in Inertial Confinement Fusion Implosions (C37) *Y. Srebro , D. Kushnir, Y. Elbaz, and D. Shvarts (Ben-Gurion University, Nuclear Research Center, Negev, and Hebrew University)*	A New Framework for Transitional and Turbulent Mixing (T36) *Y. Zhou , H. F. Robey, and A. C. Buckingham (Lawrence Livermore National Laboratory)*	**Summary Remarks**
11:30-11:50	Mix Experiments Using a Two Dimensional Convergent Shock Tube (E13) *D. A. Holder , C. Barton, and A. V. Smith (Atomic Weapons Establishment)*	Laser-Based High Pressure, High Strain-Rate Solid-State Experiments (E19) *D. H. Kalantar, J. Belak, J. D. Colvin, M. Kumar, K. T. Lorenz , K. O. Mikaelian, S. Pollaine, B. A. Remington, S. V. Weber, L. G. Wiley, A. M. Wiley, A. Loveridge-Smith, J. S. Wark, and M. A. Myers (Lawrence Livermore National Laboratory, Oxford University, and University of California, San Diego)*	Dispersal of Mass and Circulation Following Shock-sphere (axisymmetric) and Shock Cylinder Interactions: Effects Arising from Shock Cavity Collapse, Vortex Double Layers; Density-gradient Intensification and Vortex Projectiles (C29) *G. Peng, S . Gupta , S. Zhang, and N. J. Zabusky (Rutgers, State University of New Jersey)*	RT Turbulence: Dramatic Dynamics of Interpenetration (Fast Jets, Sharp Decelerations and Accelerations) (T21) *A. M. Oparin , N. A. Inogamov, and A. Yu. Dem'yanov (Institute of Computer-Aided Design, Landau Institute of Theoretical Physics, and Moscow Institute for Physics and Technology)*	**Closing Remarks: O. Schilling**
12:00-13:15	**Lunch**	**Lunch**	**Lunch**	**Lunch**	

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	Experimental Session III **Chair: *J. W. Jacobs*** ***(University of Arizona)***	**Computational Session I** **Chair: *T. L. McAbee*** ***(Lawrence Livermore National Laboratory)***	**Computational Session V** **Chair: *N. J. Zabusky*** ***(Rutgers University)***	**Theoretical Session III** **Chair: *T. T. Clark*** ***(Los Alamos National Laboratory)***	
13:15-13:35	The Evolution and Interaction of Two Shock-Accelerated Unstable Gas Cylinders (E40) *C. Tomkins , K. Prestridge, P. Rightley, C. Zoldi, and R. Benjamin* *(Los Alamos National Laboratory)*	A Comparison of High-Resolution 3D Numerical Simulations of Turbulent Rayleigh-Taylor (RT) Instability: Alpha-Group Collaboration (C10) *G. Dimonte , A. Dimits, S. Weber, D. L. Youngs, A. C. Calder, B. Fryxell, J. Biello, L. Dursi, P. MacNiece, K. Olson, P. Ricker, R. Rosner, F. Timmes, H. Tufo, Y.-N. Young, M. Zingale, M. J. Andrews, P. Ramaprabhu, S. Wunsch, C. Garasi, and A. Robinson* *(Lawrence Livermore National Laboratory, Atomic Weapons Establishment, University of Chicago, NASA Goddard Space Flight Center, Texas A & M University, and Sandia National Laboratories)*	Code to Code Comparisons for the Problem of Shock Acceleration of Diffuse Dense Gaseous Cylinder (C16) *J. A. Greenough , W. J. Rider, C. A. Zoldi, and J. R. Kamm* *(Lawrence Livermore National Laboratory and Los Alamos National Laboratory)*	Nonlinear Evolution of an Interface in the Richtmyer-Meshkov Instability (T19) *C. Matsuoka, K. Nishihara , and Y. Fukuda* *(Ehime University and Osaka University Institute of Laser Engineering)*	

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13:35-13:55	PLIF Flow Visualization of a Shock-Accelerated Air/SF6 Interface (E18) *J. W. Jacobs and V. V. Krivets* *(University of Arizona, Tuscon)*	Study of Turbulent Gravitational Mixing at Large Density Differences Using Direct 3D Numerical Simulation (C44) *Yu. V. Yanilkin , V. P. Statsenko, S. V. Rebrov, N. I. Selchenkova, O. G. Sin'kova, A. L. Stadnik, and A. Ya. Uchayev* *(Russian Federal Nuclear Center-VNIIEF)*	Molecular Dynamic Simulation of Shock and Richtmyer-Meshkov Instability in Cylindrical Geometry (C26) *K. Nishihara , V. Zhakhovskii, and M. Abe* *(Osaka University, Institute of Laser Engineering)*	Nonlinear Evolution of Unstable Fluid Interface (T1) *S. I. Abarzhi* *(State University of New York, Stony Brook)*	
13:55-14:15	Shock Tube Experiments on Richtmyer-Meshkov Instability Across a Chevron Profiled Interface (E39) *A. V. Smith , D. A. Holder, C. J. Barton, A. P. Morris, and D. L. Youngs* *(Atomic Weapons Establishment)*	Numerical Methods for Determination of Mix (C11) *S. Dutta , E. George, J. Glimm, J. Grove, X. Li, A. Marchese, D. H. Sharp, Z. Xu, and Y. Zhang* *(State University of New York, Stony Brook, Los Alamos National Laboratory, and Brookhaven National Laboratory)*	Large Eddy Simulation of Strong Shock Richtmyer-Meshkov Instability (C33) *R. Samtaney , T. Voelkl, and D. I. Pullin* *(California Institute of Technology)*	Analytical Study of the Rayleigh-Taylor Instability in Compressible Fluids (T30) *M. Tricottet and S. Bouquet* *(Commissariat à l'Energie Atomique)*	
14:15-14:35	Study of Diverging and Converging Spherical Shock Waves Induced by Micro Explosives and Their Interaction with Product Gases (E15) *S. H. R. Hosseini and K. Takayama* *(Tohoku University)*	Effects of High Initial Amplitudes and High Mach Numbers on the Evolution of the RM Instability: II. Experimental Study (E36) *O. Sadot , A. Yosef-Hai, A. Rikanati, D. Oron, G. Ben-Dor, and D. Shvarts* *(Nuclear Research Center, Negev and Ben-Gurion University)*	Spectral and High-Order Compact Methods for Shock-Induced Mixing (C8) *A. W. Cook , W. Cabot , and J. A. Greenough* *(Lawrence Livermore National Laboratory)*	Rayleigh-Taylor Instability for Compressible and Incompressible Media (T13) *N. A. Inogamov , M. Tricottet, A. M. Oparin, and S. Bouquet* *(Landau Institute for Theoretical Physics and Institute of Computer-Aided Design)*	
14:35-14:55	**Break**	**Break**	**Break**	**Break**	

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	Experimental Session IV **Chair: *K. Budil*** ***(Lawrence Livermore National Laboratory)***	**Computational Session II** **Chair: *H. Takabe*** ***(Osaka University)***	**Computational Session VI** **Chair: *B. T. Goodwin*** ***(Lawrence Livermore National Laboratory)***	**Theoretical Session IV** **Chair: *D. L. Youngs*** ***(Atomic Weapons Establishment)***	
14:55-15:15	The Dependence of the Shock Induced Richtmyer-Meshkov Instability on Dimensionality and Density Ratio (T35) *A. Yosef-Hai , O. Sadot, D. Kartoon, D. Oron, E. Sarid, G. Ben-Dor, and D. Shvarts* *(Ben-Gurion University, Nuclear Research Center, Negev)*	Numerical Investigation of a Laser Induced Turbulent Mixing Zone (C35) *P. Seytor and M. Legrand* *(Commissariat à l'Energie Atomique)*	Turbulent Mixing Nuclear Burning in Type Ia Supernova Explosion Based on Bubble Statistical Mechanics (C38) *H. Takabe , S. Yamada, K. Kobayashi, A. Mizuta, and K. Nomoto* *(Osaka University, Institute of Laser Engineering and University of Tokyo)*	Rate of Growth of the Linear Richtmyer-Meshkov Instability (T34) *J. G. Wouchuk* *(University of Castilla)*	
15:15-15:35	Effects of High Initial Amplitudes and High Mach Numbers on the Evolution of the RM Instability: II. Experimental Study (E36) *O. Sadot , A. Yosef-Hai, A. Rikanati, D. Oron, G. Ben-Dor, and D. Shvarts* *(Nuclear Research Center, Negev and Ben-Gurion University)*	Development and Validation of a 2D Turbulent Mix Model (C46) *D. L. Youngs* *(Atomic Weapons Establishement)*	High Order Numerical Methods for the 2D Richtmyer-Meshkov Instability (C54) *W.-S. Don , D. Gottlieb, L. Jameson, and C.-W., Shu* *(Brown University and Lawrence Livermore National Laboratory)*	Efficient Perturbation Methods for Richtmyer-Meshkov and Rayleigh-Taylor Instabilities: Weakly Nonlinear Stage and Beyond (T32) *M. Vandenboomegaerde , C. Cherfils, D. Galmiche, S. Gauthier, and P. A. Raviard* *(Commissariat à l'Energie Atomique)*	
15:35-15:55	Experimental Study of a Strongly-Shocked Gas Interface With Visualized Initial Conditions (E27) *J. G. Oakley , M. H. Anderson, and R. Bonazza* *(University of Wisconsin, Madison)*	The Richtmyer-Meshkov Instability in Cylindrical Geometry: Experiments and Simulation (C15) *M. J. Graham , K. S. Budil, J. Grove, and B. A. Remington* *(Lawrence Livermore National Laboratory and Los Alamos National Laboratory)*	Compressibility Effects in a High-Speed, Reacting Shear Layer: An Investigation Using DNS (C27) *C. Pantano and S. Sarkar* *(University of California, San Diego)*	Response of Turbulent RANS Models to Self-Similar Variable Acceleration RT-Mixing: An Analytical 0D Analysis (T18) *A. Llor* *(Commissariat à l'Energie Atomique)*	

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15:55-16:15	Compressible Vortex Rings (E8) *M. Brouillette and C. Hébert* *(Université de Sherbrooke)*	Simulation of a Shock-Accelerated Gas Cylinder and Comparison with Experimental Images and Velocity Fields (C50) *C. A. Zoldi , K. Prestridge, P. M. Rightley, and R. F. Benjamin* *(Los Alamos National Laboratory and State University of New York, Stony Brook)*	A Semi-Empirical Model for Turbulent Diffusion of Magnetic Field to Accelerated Plasma (C19) *E. V. Gubkov , V. A. Zhmailo, and Yu. V. Yanilkin* *(Russian Federal Nuclear Center-VNIIEF)*	Combined Shear and Buoyancy Instabilities (T33) *P. N. Wilson, M. J. Andrews , and F. H. Harlow* *(Texas A & M University and Los Alamos National Laboratory)*	
16:15-18:00	**General Poster Session: Winnett Lounge and Club Room (M-Th except from 14:00-16:00 on 12/12)**	**Experimental Discussion Chair: TBD** **Computational and Theoretical Poster Session**	**Computational Discussion Chair: TBD** **Experimental and Theoretical Poster Session**	**Theoretical Discussion Chair: TBD** **Experimental and Computational Poster Session**	
18:00-21:00	**Reception (Sunday Night): Pasadena Hilton** **Guest Speaker: *E. I. Moses*** ***(Lawrence Livermore National Laboratory)***		**Banquet: Pasadena Hilton** **Guest Speaker: *Z. Nagin Cox*** ***(NASA, Jet Propulsion Laboratory)***		

NOTE: The Poster Sessions on Tuesday, Wednesday, and Thursday will occur concurrently with the Discussions