#### 22nd Annual Midwestern Universities Fluid Mechanics Retreat March 30, 31, April 1 1995 Geneva Center, Rochester Indiana

#### **PROGRAM**

Thursday, March 30	
6:00 to 11:00 PM	Checkin and welcoming party
Friday, March 31	
7:30 AM	Breakfast
8:30 AM	Introductory Remarks
8:40 AM	Session I
10:00 AM	Coffee Break
10:20 AM	Session II
12:00 Noon	Lunch
1:30 PM	Session III
3:10 PM	R and R
5:30 PM	Dinner
6:30 PM	Session IV
8:15 PM	Social Gathering at the Redwood Lodge
Saturday, April 1	
7:30 AM	Breakfast
8:30 AM	Session V
9:50 AM	Coffee Break
10:10 AM	Session VI
12:00 Noon	Lunch

Each speaker will be allowed exactly 15 minutes to communicate uninterrupted. A fiveminute discussion period will follow. We encourage further discussion at another time during the retreat. FROGs are awarded in the MUFMECH tradition for the following infractions.

- Speaker exceeds the 15 minute allocated for speaking (1 FROG for each minute)
- Speaker or questioner exceeds the five minutes allocated for discussion
- Participants interrupt the speaker
- Participants refer to the other participants using a title; such as, Professor, Doctor, Student, Your Excellency, The Grand Wombat, Oh Exalted Science Wizard, etc.
- Participants mention the names of funding agencies; such as Illinois Bureau of Pedestrian Fluid Mechanics and Autobody Body Repair
- Participants arrive late for a session
- Any other infraction deemed worthy by the KOTGOF

Session Chairpersons are responsible for starting the sessions on time and maintaining the schedule. The KOTGOF (Keeper of Time and Giver of Frogs) for each session is responsible for awarding FROGs according to the rules stated. Participants awarded FROGs must redeem them by contributing \$1.00 per FROG to the refreshment fund.

# SESSION I (Friday Morning, March 31)

Chairperson: Fabulous Foss KOTGOF: Cold Cuts Kolkka

	Time	Speakers	School	Title
1	8:40	M. D. Kunka S. Tanveer M. R. Foster	The Ohio State University (OSU)	Dendritic crystal growth at small Peclet number including surface tension
2	9:00	Seon Hoon Kim S. A. Korpela	OSU	Influence of weak convection on impurity distribution in crystal growth
3	9:20	Lei Jiang Chao-Lung Ting	University of Michigan (UM)	Faraday waves
4	9:40	Chris Cho	Western Michigan University (WMU)	Response characteristics of thin film heat flux gage
10:00			COFFEE	

# SESSION II (Friday Morning, March 31)

Chairperson: Tremendous Trygvasson KOTGOF: Big Bad Bala Balachandar

Talk	Time	Speakers	School	Title
5	10:20	Jennifer Hamelin Amy Alving	University of Minnesota	Correlations and spectra in a shear-free turbulent boundary layer
6	10:40	Steve Gravante	Illinois Institute of Technology (IIT)	Reynolds number effects on measurements of the wall pressure beneath a turbulent boundary layer
7	11:00	Jigen Zhou	University of Illinois at Urbana- Champaign (UIUC)	Evolution of near-wall vortical structures in a turbulent boundary layer
8	11:20	Scott Morris	Michigan State University (MSU)	Measurements in the MSU ACFRD facility
9	11:40	David Williams	шт	Three-dimensional subharmonic waves in the near wake of a cylinder
12:00			LUNCH	

# SESSION III (Friday Afternoon, March 31) Chairperson: Marvelous Merati KOTGOF: Powderkeg Paolucci

Talk	Time	Speakers	School	Title
10	1:30	John Coleman	WMU	Application of actuator disk theory to submarine modeling
11	1:50	J.A. Yosick A.J. Giacomin	University of Wisconsin - Madison (UW)	A kinetic network model for nonlinear transient flow behavior of molten plastics in both shear and extension
12	2:10	Ching-Lun Wu and D.S. Malkus	UW	2D spurt layers using dynamic simulation
13	2:30	Robert Kolkka	MTU	Modeling step-strain instabilities for nearly monodisperse polymer melts and solutions
14	2:50	Gary A. Huber Sangtae Kim	υw	Fast simulations of diffusion-limited reactions with WEB
3:10	R and R			
5:30	DINNER			

# SESSION IV (Friday Evening, March 31)

Chairperson: Wonderful Wark KOTGOF: Malevolent Malkus

Talk	Time	Speakers	School	Title
15	6:30	Oleg V. Vasilyev Samuel Paolucci	University of Notre Dame (ND)	A dynamically adaptive multilevel wavelet collocation method for solving partial differential equations in a finite domain
16	6:50	Osamah Haddad	пт	Numerical study of receptivity over a parabolic body
17	7:10	Donna Michalek	MTU	Unstructured grid use in CFD, or There's something other than quadrilaterals
18	7:30	Siggi Thorodsen	UIUC	New flow phenomena inside a partially filled horizontally rotated cylinder
19	7:50	Gretar Trygvasson	UM	Bubbles, drops & big splashes
8:15	SOCIAL GATHERING AT THE REDWOOD LODGE			

# SESSION V (Saturday Morning, April 1)

Chairperson: Salutacious Sangtae KOTGOF: Scheisty Schultz

Talk	Time	Speakers	School	Title
20	8:30	S. J. Haam V. Vanicek M. Placnik I. Fort R. S. Brodkey	OSU	LDA Liquid Velocity Measurement During Dispersed Flow of Large Spherical Beads
21	8:50	Mah'd Alrefai	IIT	Investigation of the dynamic-stall vortex over a pitching airfoil using leading-edge suction
22	9:10	Michael Hites	ШТ	Airfoil lift enhancement through oscillatory blowing
23	9:30	James Rabchuk	University of Illinois- Chicago	On understanding the Kutta condition at a trailing edge
9:50			COFFEE	

# SESSION VI (Saturday Morning, April 1)

Chairperson: Conservator Corke KOTGOF: Broadside Brodkey

Talk	Time	Speakers	School	Title
24	10:20	Charles Petty	MSU	Vortex breakdown effects in hydro-cyclone separators
25	10:40	Steve Ceccio	UM	PIV measurements in cavitating flows
26	11:00	Da-hai Yu Ahsan Kareem	ND	Numerical simulation of airflow around rectangular cross-section cylinders
27	11:20	Ricardo Romero- Mendez Mihir Sen K.T. Yang	ND	Optimization of plate-fin and tube heat exchangers
28	11:40	Evan Hurlburt	UIUC	Measurement of thin liquid films in two-phase stratified/annular flow
11:50	CLOSING REMARKS			
12:00	LUNCH			