

Day 1: Venue: U. J. Noblet Forestry building – room # 144

May 23, 2019

1. Pi chamber overview - 1

Time	Speaker	Title
9:00-9:25	Raymond Shaw	Welcome and Introductory note
9:30-10:30	Will Cantrell	Pi chamber overview with emphasis on measurement capabilities (45 min + 15 min)
10:30-11:00 - Coffee break		

2. Pi chamber overview - 2

11:00-12:30	Greg Kinney / Prasanth Prabhakaran	Pi chamber tour (Dow 105)
12:30-14:00 – Lunch break (Dow 6 th floor north atrium)		

3. Boundary conditions and LES - 1 Chair: Raymond Shaw

14:00-14:40	Steven Krueger	Flux model and sidewall boundary conditions (25 min + 15 min)
14:40-15:20	Subin Thomas / Fan Yang	Scaling of an atmospheric model to simulate the turbulence and cloud-microphysics in the Pi chamber (25 min + 15 min)
15:20-15:30		Q&A / additional discussion
15:30-16:00 – Coffee break		

4. Boundary conditions and LES - 2

16:00-17:30	Mikhail Ovchinnikov	LES boundary conditions, flux model, sidewalls vs periodic
18:30-21:30 – Banquet: Continental Fire Company, 408 East Montezuma Ave. Houghton		

Day 2: Venue: Great Lakes Research Center – room # 202

May 24, 2019		
1. DNS studies of relevant processes		Chair: Fan Yang
Time	Speaker	Title
9:00-9:15	Izumi Saito	DNS on stochastic condensation and broadening of droplet size distributions
9:15-9:30	Sisi Chen	From aerosol activation to droplet growth: Modeling turbulence and microphysics in DNS
9:30-9:45	David Richter	DNS and Lagrangian tracking of droplet activation and growth in Rayleigh-Bénard turbulence
9:45-10:00	Kamal Kant Chandrakar	Supersaturation fluctuations in moist turbulent Rayleigh-Bénard convection: a two-scalar transport problem
10:00-10:30	David Richter / Izumi Saito	Discussion: DNS forcing and boundary condition challenges
10:30-11:00 – Coffee break (and poster setup)		

2. Microphysics models		Chair: Wojciech Grabowski
11:00-11:30	Fabian Hoffmann	Lagrangian cloud modeling: Foundations and recent developments
11:30-12:30	Wojciech Grabowski	Discussion: Eulerian vs Lagrangian microphysics
12:30-14:00 – Poster session and lunch break		

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3. Pi chamber cases for 2020 Cloud Modeling Workshop

14:00-15:30

Sisi Chen / Steven Krueger

Pi chamber test case1: activation and condensational growth of droplets, boundary conditions/configuration

15:30-16:00 – coffee break

16:00-17:30

Mikhail Ovichinnikov / Lulin Xue

Pi chamber test case 2 (complex scenarios): collision coalescence, mixed phase