

## MATRIX PROGRAM: CONSERVATION LAWS, INTERFACES, and MIXING

### 04 Nov 2019, Monday

	<i>Breakfast</i>	08.00-9.00
Program Organizers	Welcome	09.00-9.15
Nepomnyashchy A	Excitation and control of interfacial instabilities	09.15-10.00
Klewicki J	Structure of passive scalar transport in turbulent channel flow	10.00-10.45
	<i>Morning Break</i>	10.45-11.15
Roberts A	Rigorous modeling determines both a macro-scale model and its boundary conditions	11.15-12.00
	<i>Lunch</i>	12.00-13.30
Program Participants	Collaboration	13.30-15.00
	<i>Afternoon break</i>	15.00-15.30
Program Participants	Collaboration	15.30-17.00
	<i>Dinner</i>	19.00-20.00

### 05 Nov 2019, Tuesday

	<i>Breakfast</i>	08.00-9.00
Li X	Lagrangian front tracking and applications to conservation law, fluid mixing, and phase transition problems	09.00-9.45
Abarzhi SI	Interface dynamics: New mechanisms of stabilization and destabilization and structure of flow fields	09.45-10.30
	<i>Morning Break</i>	10.30-11.00
Hutchinson A	Application of a modified Prandtl mixing length model to the turbulent classical far wake with a variable mainstream flow	11.00-11.30
Nepomnyashchy A	Longwave oscillatory instabilities	11.30-12.00
	<i>Lunch</i>	12.00-13.30
Program Participants	Collaboration	13.30-15.00
	<i>Afternoon break</i>	15.00-15.30
Program Participants	Poster Session	15.30-17.00
	<i>MATRIX chees and wine</i>	17.00
	<i>Dinner</i>	19.00-20.00

### 06 Nov 2019, Wednesday

	<i>Breakfast</i>	08.00-9.00
Tanveer S	Analysis of Two fluid Couette Flows	09.00-9.45
Klimenko A	Entropy, mixing and the direction of time	09.45-10.30
	<i>Morning Break</i>	10.30-11.00
Li X	Modeling of fabric surface through front tracking with application to parachute inflation	11.00-11.30
Klimenko A	Thermodynamics and kinetics of anti-symmetric extension of the second law to antimatter	11.30-12.00
	<i>Lunch</i>	12.00-13.30
Program Participants	Collaboration	13.30-15.00
	<i>Afternoon break</i>	15.00-15.30

**MATRIX Program**  
**Conservation Laws, Interfaces, and Mixing**

Creswick, 04-08 November 2019

Tel: +61-3-8344-4750; Email: [office@matrix-inst.org.au](mailto:office@matrix-inst.org.au)

URL: <https://www.matrix-inst.org.au/events/conservation-laws-interfaces-and-mixing/>; <http://www.ictp.it/~tmb>

Program Participants	Collaboration	15.30-17.00
	<i>Dinner</i>	19.00-20.00

### 07 Nov 2019, Thursday

	<i>Breakfast</i>	08.00-9.00
Fukumoto Y	Effect of compressibility in the reaction zone of a premixed flame and its implication to the Darrieus-Landau instability	09.00-9.45
Abarzhi SI	High energy density plasmas, fluid instabilities and interfacial mixing	09.45-10.30
	<i>Morning Break</i>	10.30-11.00
Hutchinson A	Comparison of algebraic closure models applied to the two-dimensional turbulent classical far wake	11.00-11.45
Williams K	Singular behaviors and new morphologies in Rayleigh Taylor instability	11.45-12.15
	<i>Lunch</i>	12.00-13.30
Program Participants	Collaboration	13.30-15.00
	<i>Afternoon break</i>	15.00-15.30
Program Participants	Collaboration	15.30-17.00
	<i>Dinner</i>	19.00-20.00

### 08 Nov 2019, Friday

	<i>Breakfast</i>	08.00-9.00
Program Participants	Collaboration	09.00-10.30
	<i>Morning Break</i>	10.30-11.00
Khan A	Determination of a transient shape of a sludge blanket in an anaerobic lagoon	11.00-11.30
Program Organizers	Final Report	11.30-12.00
	<i>Lunch</i>	12.00-13.30
Program Participants	Departure	13.30-17.00

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