Relativistic hydrodynamics: theory and modern applications

MITP October 10-14 2016

	Monday		**Tuesday**	**Wednesday**	**Thursday**		**Friday**	
9.00	*Registration, Coffee*							
9.45	*Opening*	*Chair*	*Romatschke*	*Denicol*		*Floerchinger*		*Heinz*
10.00	Heinz	9.30	Jaiswal	Becattini	9.30	Rezzolla	9.30	Kharzeev
10.45	Schenke	10.15	Noronha	Hongo	10.15	Del Zanna	10.15	Strickland
11.30	*Break*	11.00	*Break*	*Break*	11.00	*Break*	11.00	*Break*
11.45	Romatschke	11.30	Denicol	Grossi	11.30	Inghirami	11.30	Tinti
12:30	*Discussion*	12.15	*Discussion*	*Discussion*	12.00	Kovtun	12.15	Qun Wang
13:00	*Lunch*	12:45	*Lunch*	*Lunch*	12.45	*Discussion*	13:00	*Discussion*
					13:15	*Lunch*	13.15	*Lunch*
14.30	Welcome address *Kapusta*	*Chair*	*Kovtun*	*Starinets*				*Jaiswal*
14.45	Niemi	14.45	Kapusta	Rangamani			14:45	Ryblewski
15:30	Csernai	15:30	Starinets	Floerchinger			15:30	Florkowski
16:15	*Break*	16:15	*Break*	*Break*			16:15	*Break*
16:45	Mace	16:45	Pinzani	Heller			16:45	Hirono (?)
17.30	*Discussion*	17:30	*Discussion*	*Discussion*			17:30	*Discussion*

U. Heinz - *Towards an optimized hydrodynamic theory of heavy-ion collisions*

B. Schenke - *Applications of relativistic hydrodynamics: going small and going forward*

P. Romatschke - *Do nuclear collisions create a locally equilibrated quark-gluon plasma?*

L. Csernai - *Initial state with shear and vorticity in streak by streak Bjorken coordinates.*

M. Mace – *Initial conditions for anomalous hydrodynamics*

H. Niemi – *Testing the validity of fluid dynamics in (2+1)-dimensional boost-invariant expansion*

A. Jaiswal - *Relativistic dissipative hydrodynamics from kinetic theory in the relaxation-time approximation*

J. Noronha - *New developments in the kinetic theory description of rapidly evolving systems*

G. Denicol – *Convergence of the method of moments and Chapman-Enskog theory in Relativistic kinetic theory*

P. Kovtun – *Hydrodynamics of polarized relativistic matter*

A. Starinets - *From strong to weak coupling in holographic models of relativistic plasmas*

N. Pinzani – *Aspects of hydrodynamics from a path integral formulation*

F. Becattini – *The four-temperature and relativistic hydrodynamics*

M. Hongo - *Path-integral formula for local thermodynamic equilibrium*

E. Grossi - *Rotation and acceleration corrections to the relativistic energy-momentum tensor*

M. Rangamani - *A new perspective on the Schwinger-Keldysh paradigm*

M. Heller - *Relativistic hydrodynamics as an asymptotic series*

S. Floerchinger -*Variational principle for theories with dissipation from analytic continuation*

L. Rezzolla - *When hydrodynamics is general relativistic*

L. Del Zanna - *Relativistic magneto-hydrodynamic simulations of astrophysical plasmas*

G. Inghirami – *Numerical code for relativistic magneto-hydrodynamics*

D. Kharzeev - *Quantum anomalies and relativistic hydrodynamics*

Y. Hirono - *TBA*

J. Kapusta - *How to implement noise in relativistic hydrodynamics?*

Q. Wang - *Chiral Kinetic Equations from Wigner functions.*

D. Rischke - *Anisotropic dissipative fluid dynamics - theory and applications in heavy-ion physics*

M. Strickland -*3+1d Anisotropic Hydrodynamics – Phenomenological applications*

L. Tinti - *Anisotropic matching principle in the hydrodynamics expansion*

W. Florkowski -*Gradient expansion for anisotropic hydrodynamics*

M. Ryblewski - *Non-boost-invariant dissipative hydrodynamics*