

OCAMI Joint Usage/Research
Space-time topology and geometry
with a focus on vorticity and magnetic fields

Date: December 15 (Thu) - 17 (Sat), 2022

Venue: JR Hakata City 9F, Meeting Room <https://www.jrhakatacity.com/translation/>
<https://indico.nitep.osaka-cu.ac.jp/event/116/>

December 15 (Thu) JR Hakata City 9F, Middle Meeting Room 3

- 14:00 ~ 14:10 Opening address
- 14:10 ~ 14:50 T. Arima (Nat. Inst. Tech. Tomakomai), T. Ruggeri (U. Bologna)
Molecular rational extended thermodynamics of polyatomic gases
- 14:50 ~ 15:00 Tea break
- 15:00 ~ 15:40 Y. Kawaguchi (Nagoya U.)
Quantized vortices in a Bose-Einstein condensate with internal degrees of freedom space
- 15:40 ~ 16:00 Tea break
- 16:00 ~ 16:40 S. Koide (Kumamoto U.), M. Inda-Koide (Sojo U.)
Resistive GRMHD numerical simulations of magnetic reconnection around a black hole
- 16:40 ~ 16:50 Tea break
- 16:50 ~ 17:30 S. Noda (Nat. Inst. Tech. Miyakonojo)
Alfvén wave propagation in a black hole magnetosphere

December 16 (Fri) JR Hakata City 9F, Middle Meeting Room 3

- 9:10 ~ 9:50 H. Itoyama (Osaka Metro. U.)
Successes in matrix models in quantum field theory
- 9:50 ~ 10:30 K. Maruyoshi (Seikei U.), E. Nardoni (IPMU), J. Song (KAIST)
On supersymmetry enhancement
- 10:30 ~ 10:40 Tea break
- 10:40 ~ 11:20 A. Gerrard (Ochanomizu U.), N. MacKay (U. York),
V. Regelskis (U. Hertfordshire, Vilnius U.)
Nested Bethe ansatz for quantum spin chains
- 11:20 ~ 12:00 T. Deguchi, E. Uehara (Ochanomizu U.), J. Cantarella (U. Georgia),
C. Shonkwiler (Colorado State U.)
Exact elasticity of a phantom network of polymers through homology

- 12:00 ~ 13:30 Lunch break
- 13:30 ~ 14:10 S. Yoshino, M. Hirota, Y. Hattori (Tohoku U.)
On the validity and application of extended MHD models
for relativistic plasmas
- 14:10 ~ 14:50 Z. Yoshida (Nat. Inst. Fusion Sci.)
Symmetry generated by Casimir invariant and scale hierarchy yielding
adiabatic invariant
- 14:50 ~ 15:00 Tea break
- 15:00 ~ 15:40 K. Abe (Osaka Metro. U.)
Stability of Chandrasekhar's nonlinear force-free fields
- 15:40 ~ 16:00 Tea break
- 16:00 ~ 16:40 H. Ishihara (Osaka Metro. U.), M. Takahashi (Aichi U. Edu.),
T. Ogawa (Osaka Metro. U.)
Alfvén waves in a homogeneous Beltrami magnetic field
- 16:40 ~ 16:50 Tea break
- 16:50 ~ 17:30 M. Takahashi (Aichi U. Edu.)
Black hole force-free magnetosphere and Beltrami magnetic field

December 17 (Sat)

JR Hakata City 10F, Meeting Room I+J

- 9:30 ~ 10:10 M. Murakami, D. Shokov, M. Zosa (Osaka U.), J. Honrubia (U. Politéc. Madrid)
Generation of megatesla magnetic fields by microtube implosions
- 10:10 ~ 10:50 T. Sano (Osaka U.)
Relativistic wave-particle interactions under strong magnetic fields
- 10:50 ~ 11:10 Tea break
- 11:10 ~ 11:50 M. Suzuki (Nagoya Inst. Tech.), M. Takayama (Keio U.), K. Z. Zhang (New York U.)
Stability and instability of plasma boundary layers
- 11:50 ~ 12:30 T. Ishihara (Okayama U.)
On vortical structures in high Reynolds number turbulence
--- Results of direct numerical simulations
- 12:30 ~ 12:35 Closing remarks

※ If you attend this conference, please visit the HP and make registration

<https://indico.nitep.osaka-cu.ac.jp/event/116/>

by clicking the button 'Registration' on the left

Organizers: Yasuhide Fukumoto (Kyushu U., PI), Hiroshi Itoyama (Osaka Metro. U.)