

Regensburg-Tohoku Workshop on Solid-State Physics and Spintronics

March 28-30, 2017 in Zao

Supported by
Graduate Program in Spintronics



Main Speakers

University of Regensburg

Christian BACK

Dominique BOUGEARD

Franz GIESSIBL

Milena GRIFONI

Matthias KRONSEDER

John LUPTON

Klaus RICHTER

Dieter WEISS

Tohoku University

Gerrit BAUER

Yoshiro HIRAYAMA

Fumihiko MATSUKURA

Junsaku NITTA

Special Guest

Mikito KOSHINO (Osaka University)

Organizing Committee

Junsaku NITTA (Co-Chair)

Dieter WEISS (Co-Chair)

Yoshiro HIRAYAMA (Vice-Chair)

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Venue

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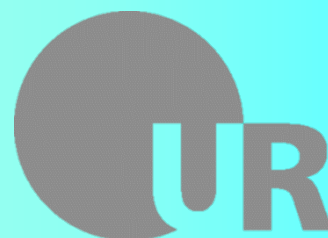
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Program

Regensburg-Tohoku Workshop on Solid-State Physics and Spintronics

March 28th

- 15:20-15:30 Opening J. Nitta (Tohoku)
- 15:30-15:55 Talk 1 D. Weiss (Regensburg)
"Transport in graphene and topological insulator antidot lattices"
- 15:55-16:20 Talk 2 F. Matsukura (Tohoku)
"Field and current-induced magnetization reversal in elliptic CoFeB/MgO magnetic tunnel junctions"
- 16:20-16:45 Talk 3 M. Koshino (Osaka)
"Physics of incommensurate 2D crystals"
- 16:45-17:00 Talk 4 R. Kozlovsky (Regensburg)
"Magnetotransport in 3D Topological Insulator Nanowires"
- 17:00-17:15 Talk 5 D. Hou (Tohoku)
"Sign change of spin Hall magnetoresistance in Pt/NiO/YIG structures"
- 17:15-17:30 Talk 6 O. Tretiakov (Tohoku)
"Spin-orbit Torque Driven Skyrmion Hall Effect"
- 17:30-17:45 Talk 7 J. Llandro (Tohoku)
"Magnetic gyroids: topological effects via 3D nanostructuring?"
- 17:45-22:00 Poster Session/ Dinner

Poster Session (17:45-22:00)

Poster 1 T. Gruenbaum (Regensburg)

“Suppression of parasitic AMR signals in measurements of the inverse spin Hall effect”

Poster 2 H. Gamou (Tohoku)

“Comparison of current induced effective fields in Ta/CoFeB/MgO hetero-structure between epitaxial and amorphous Ta underlayers”

Poster 3 F. Dirnberger (Regensburg)

“Spin dynamics in single GaAs nanowires”

Poster 4 M. Takahashi (Tohoku)

“Transport characteristics of triple-gated quantum-point-contacts”

Poster 5 F. Eberle (Regensburg)

“Electrical control of large spin-valve signals in spin injection devices with a 2DEG channel”

Poster 6 T. Masuda (Tohoku)

“Transport characteristics of InSb trench type in-plane gate quantum point contacts”

Poster 7 M. Kronseder (Regensburg)

“Stripe domain pattern in non-centrosymmetric ultrathin Fe/Ni-films on Cu(001)”

Poster 8 T. Dohi (Tohoku)

“Spin-wave resonance and its electric-field modulation in nanoscale CoFeB/MgO magnetic tunnel junctions”

Poster 9 M. Shinozaki (Tohoku)

“Homodyne-detected ferromagnetic resonance in nanoscale magnetic tunnel junction under perpendicular magnetic fields”

March 29th

- 8:45-9:10 Talk 8 C. Back (Regensburg)
 "Magnetic microscopy with sub-picosecond temporal resolution"
- 9:10-9:35 Talk 9 G. Bauer (Tohoku)
 "Who is afraid of YIG?"
- 9:35-10:00 Talk 10 F. Giessibl (Regensburg)
 "Advances in studying matter on the atomic scale by scanning probe microscopy"
- 10:00-10:15 Talk 11 K. Hashimoto (Tohoku)
 "Scanning nuclear resonance imaging of a hyperfine-coupled quantum Hall system"

10:15-10:30 Coffee Break

- 10:30- 10:55 Talk 12 J. Lupton (Regensburg)
 "Coherent singlet-triplet spin mixing in OLEDs"
- 10:55- 11:20 Talk 13 Y. Hirayama (Tohoku)
 "Nuclear polarization and resistively-detected NMR in semiconductor quantum systems"
- 11:20- 11:45 Talk 14 D. Bougeard (Regensburg)
 "Enhanced spin-orbit coupling in wurtzite core-shell nanowires"
- 11:45- 12:00 Talk 15 J. Barker (Tohoku)
 "Semi-quantum spin dynamics"

12:00-13:00 Lunch

- 13:00-14:00 Special Poster Session
 PosterS1 Outline of MD program (M. H. Fauzi)
 PosterS2 Outline of GP-Spin (Y. Hirayama/ F. Matsukura)

14:00-16:00 Ad Hoc

16:00-18:00 Discussion Session

18:00-19:30 Dinner

19:30-22:00 Discussion Session

March 30th

- 8:45- 9:10 Talk 16 M. Grifoni (Regensburg)
 "The Kondo effect in carbon nanotubes"
- 9:10- 9:25 Talk 17 M.Niklas (Regensburg)
 "Fano stability diagram of a symmetric triple quantum dot"
- 9:25-9:40 Talk 18 M. Kohda (Tohoku)
 "Spin dynamics modulated by spin orbit interaction under diffusive electron motion
 in GaAs/AlGaAs quantum wells"
- 9:40-9:55 Talk 19 K. Sato (Tohoku)
 "Electrically controlled pinning of Dzyaloshinskii-Moriya domain walls"

9:55-10:10 Coffee Break

- 10:10-10:35 Talk 20 J. Nitta (Tohoku)
 "Geometric effects in spin interferometers"
- 10:35-11:00 Talk 21 K. Richter (Regensburg)
 "Electron Optics in Ballistic graphene"
- 11:00-11:15 Talk 22 H. Saarikoski (RIKEN)
 "Spin-interference in anisotropic spin-orbit fields in mesoscopic rings"
- 11:15-11:30 Talk 23 M. H. Fauzi (Tohoku)
 "Resistively-detected NMR lineshapes in a quasi-one dimensional electron system"
- 11:30- Closing D. Weiss (Regensburg)