2016
Japan & France joint workshop

- Oxide electronics and spintronics seminar -

19th May
Venue: Université Pierre et Marie Curie (4 place Jussieu 75005 Paris)

20th May
Venue: CNRS/Thales, 1C50–52 (1 Avenue Augustin Fresnel, Palaiseau)

- Interdisciplinary and integrated seminar -

21st May
Venue: Institut Pasteur (25 – 28 Rue du Dr Roux, 75015 Paris)

Host organization:
The Japan Society of Applied Physics (JSAP)
Frontier Research Group of ‘Ferroic ordering and their manipulation’
Unité Mixte de Physique, CNRS, Thales

Supporting organization: JSAP Tohoku Chapter, JSAP Spintronics group, The Meeting on Ferroelectric Materials and Their Applications
Program

– Oxide electronics and spintronics seminar –

Morning coffee and refreshments 9:00

Opening 9:25 - 9:30 Hiroshi Naganuma (Tohoku University)

19th May, 9:30-18:00, at tower during 23/24 room number 101

Chair: Hiroshi Naganuma (Tohoku University)

A1-01  9:30-10:10 [Opening remarks]
- History and recent progress of Oxitronics group
  CNRS/Thales
  ○ Agnes Barthelemy

A1-02  10:10-10:40 *Recent progress in spin caloritronics for energy conversion
  Tohoku University
  ○ Masaki Mizuguchi

A1-03  10:40-11:10 *Recent progress of ferroelectric tunnel junctions
  CNRS/Thales
  ○ Vincent Garcia and Stephane Fusil

A1-04  11:10-11:40  *Tuning spin order and spin excitations in multiferroic BiFeO₃ thin films
  CNRS/Thales
  ○ Manuel Bibes

Coffee break 11:40 – 11:45

Chair: Jun Kano (Okayama University)

A1-04  11:45-12:15  *Bulk-rhombohedral structure within thin film BiFeO₃ evidenced by transmission electron microscopy
  State University of NY, USA
  ○ In-Tae Bae

A1-05  12:15-12:45  *Reconciling the ionic and covalent pictures in rare-earth nickelates
  CNRS/Thales
  ○ Julien Varignon

Lunch 12:45 - 14:00

Co-Chair: Masaki Mizuguchi (Tohoku University) and Taro Wakamura (Paris sud University)

P1-01  14:00-14:30 *Electric control of perpendicular exchange bias in Cr₂O₃/Co thin film system
  Tohoku University, Department of Electronic Engineering
  ○ Tomohiro Nozaki, Muftah Al-Mahdawi, Satya Prakash Pati, Ye Shujun, Yohei Shiokawa, and Masashi Sahashi

P1-02  14:30-14:45 Spin-charge conversion at non-magnetic metal/Bi₂O₃ interface
  1. University of Tokyo, 2. RIKEN
  ○ Shutaro Karube,¹ Kouta Kondou,² and Yoshi/Chika Otani¹ ²

P1-03  14:45-15:15 *Influence of the target composition on the growth optimization of NdNiO₃ thin films
  CNRS/Thales
  ○ Daniele Preziosi

P1-04  15:15-15:30 Conductive Property of Junctions with Multiferroic BiFeO₃ ultrathin films
  Tohoku University
  ○ Ichinose Tomohiro

P1-05  15:30-15:45 Magnetotransport properties of metal/LaAlO₃/SrTiO₃ heterostructure
  CNRS/Thales
  ○ Diogo Vaz
Nanostructure in vertically aligned nanocomposite of Aurivillius-type Bi-layered compounds and spinel ferrites
Tohoku University
○ Shingo Maruyama, Yuta Kawahira, Ryoma Harada, and Yuji Matsumoto

Coffee break 16:15 – 16:30

Dinner
LA COUPOLE (102 Boulevard du Montparnasse, Paris)

20th May, 9:30-16:20, CNRS/Thales, room number: 1C50 - 52

Chair : Hiroshi Naganuma (Tohoku University)

A1-01 9:30-10:00 *Spin transport and spin Hall effect in superconductors
Paris Sud University
○ Wakamura Taro

A2-02 10:00-10:30 *Magnetic tunnel junctions using Fe3O4 electrodes
Hokkaido University
○ Nagahama Taro

A2-03 10:30-11:00 *Magnetic imaging of skyrmions: Effect of temperature, magnetic field and geometrical constrains
Forschungszentrum Jülich, Germany
○ Andras Kovács

Coffee break 11:00 – 11:15

Chair : Julien Varignon (CNRS/Thales)

P1-01 11:15-11:45 *First-principles study on the electronic and magnetic properties of BiFeO3 and Bi(Fe,Co)O3
Tohoku University
○ Tsujikawa Mastao

P1-02 11:45-12:15 *Controlling the ferroelectric switching path to get magnetization reversal
Luxembourg Institute of Science and Technology (LIST)
○ Jorge Iniguez

P1-03 12:15-12:45 *Ferroelectricity and weak ferromagnetism of hexagonal ErFeO3 thin film
Chiba University
○ Yokota Hiroko

Lunch 12:45 - 14:00

Chair : Vincent Garcia (CNRS/Thales)

P2-01 14:00-14:30 *Anormalous valance state and catalysis of metal nanoparticles supported on ferroelectrics
Okayama University
○ Kano Jun
Coffee break 15:00 – 15:15

Chair: Jorge Iniguez (Luxembourg Institute of Science and Technology)

P3-01 15:15-15:45  *Ferromagnetism in BiFe_{1-x}Co_xO_3 thin films and the correlation between ferroelectric and ferromagnetic domains*
Tokyo Institute of Technology, 2Nagoya Institute of Technology
○ Hajime Hojo,¹ Ryo Kawabe,¹ Hajime Yamamoto,¹ Ko Mibu,² Masaki Azuma¹

P3-02 15:45-16:15  *Metastable Ferroelectric Thin Films*
Tokyo Institute of Technology
○ Shintaro Yasui

Closing 16:15 - 16:20 Manuel Bibes (CNRS/Thales)

Lab tour 16:30 – 18:00
* 19:30 - 20:30 board meeting of ferroic-group.

- Interdisciplinary and integrated lecture –

21st May, 10:00-16:10

Opening 9:55 - 10:00 Taro Wakamura (Paris Sud University)

Chair: Satoshi Kinugasa (Hopital Tenon)

A1-01 10:00-11:00 How to find the center of cell
Institut Jacque Monod
○ Hirokazu Tanimoto

A1-02 11:00-12:00 Chronic inflammation in non-communicable diseases
Hopital Henri Mondor
○ Daigo Sawaki

Open discussion and lunch 12:00 - 14:00
Le Petite Bretagne (20 rue du Cotentin Paris)

Chair: Hiroshi Naganuma (Tohoku University, CNRS/Thales)

P1-01 14:00-15:00  A recipe for rings and moons
Institut de Physique du Globe de Paris, France, Department of Planetology, Kobe University
○ Ryuki Hyodo

P1-02 15:00-16:00 Ceramics in everyday life
Tokyo Institute of Technology, Materials & Structures Laboratory
○ Shintaro Yasui

Closing 16:00 - 16:10 Emi Murayama (Institut Pasteur)

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