



## Monday Morning, September 12

**8:30 to 10:20 General -Chair: J.P. Pouget**

### Opening Announcements

- M1. **Gunzi Saito**, Graduate School of Science, Kyoto University (30 min)  
*Conductors Based on Nucleic Acid Base; Cytosine-TCNQ Derivatives and Pyrimido-Fused TTF Derivatives*
- M2. **Madoka Tokumoto**, Natl. Inst. of Advanced Industrial Science and Technology (20 min)  
*A wonderland of 1, 2, 3-dimensional molecular conductors – Fermiology and nonlinear optics*
- M3. **Jordi Fraxedas**, ICMAB-CSIC (20 min)  
*Measuring Energies at the Nanometer-Scale of Molecular Organic Materials with an Atomic Force Microscope: TTF-TCNQ as a case study*
- M4. **Shojun Hino**, Chiba University (20 min)  
*Electron Interaction between Encapsulated Atoms and pi-Electrons of Fullerene Cage*
- M5. **Patrick Batail**, University Angers (20 min)  
*(EDT-TTF-CONH<sub>2</sub>)<sub>6</sub>[Re<sub>6</sub>Se<sub>8</sub>(CN)<sub>6</sub>], a Metallic Kagomé-Type Organic-Inorganic Hybrid Compound*

**10:50 to 12:20 General -Chair: C. Rovira**

- M6. **Eugenio Coronado**, Universidad de Valencia (30 min)  
*Multifunctional Molecular Materials: Design of Chiral Ferromagnetic Metals*
- M7. **Martin Dressel**, Universität Stuttgart (20 min)  
*Anisotropy and Field-Dependence of the Spin-Density-Wave Dynamics in (TMTSF)<sub>2</sub>PF<sub>6</sub>*
- M8. **Woun Kang**, Ewha Womans University, Seoul (20 min)  
*Comparative Study of Angular Magneto-Resistance Oscillations between Quasi-One-Dimensional and Quasi-Two-Dimensional Organic Conductors*
- M9. **Hayao Kobayashi**, Institute for Molecular Science, Okazaki (20 min)  
*Development of Multi-Functional Magnetic Molecular Conductors*

LUNCH/ TUTORIAL

**12:30 – 1:45 Synthesis**

**Marc Fourmigue**, Universite d'Angers  
*Tutorial sur la chimie des conducteurs organiques*

## Monday Afternoon

**2:00 to 3:30 Synthesis -Chair: J. Schlueter**

- M10. **Narcis Avarvari**, CNRS – Universite d'Angers (20 min)  
*Chiral Molecular Conductors Based on Tetrathiafulvalene-Oxazoline Derivatives: Synthesis, Crystalline Structures and Properties*
- M11. **Rosa Llusar**, Universitat Jaume I, Castellon (20 min)  
*Development of Trinuclear Molybdenum Cluster Chalcogenides with Outer Dithiolate Ligands as Magnetic Building Blocks for the Preparation of Molecular Conductors*
- M12. **Akiko Kobayashi**, University of Tokyo (20 min)  
*Development of Metallic Crystals Composed of Single-Component Molecules-Molecular Alloy System and Related Monoanion Complexes*
- M13. **Takayoshi Nakamura**, Hokkaido University (15 min)  
*Structure and Magnetic Properties of Polyoxometalate Salts with Supramolecular Cations*
- M14. **Salavat Khasanov**, Russian Academy of Sciences – Inst. of Solid State Physics (15 min)  
*Hybrid Molecular Metals Based on the BEDT-TTF Salts with Paramagnetic Anions  $[\text{CrNO}(\text{CN})_5]^{3-}$  and  $[\text{M}(\text{CN})_6]^{3-}$ ,  $\text{M}=\text{Fe}, \text{Co}, \text{Cr}$*

**4:00 to 5:30 Novel Probes of Molecular Systems -Chair: H. Kobayashi**

- M15. **Lydie Valade**, CNRS - Laboratoire de Chimie de Coordination, Toulouse (20 min)  
*An Approach to the Origin of Transport Properties in a Series of Molecular Conductors, Based on XPS and Spectroscopic Studies*
- M16. **Jean-Paul Pouget**, Université Paris-sud, Orsay (20 min)  
*Neutron-Scattering Evidence for a Spin-Peierls Ground State in  $(\text{TMTTF})_2\text{PF}_6$*
- M17. **Seiko Ohira**, RIKEN, Saitama (20 min)  
*Spin Liquid State in  $\kappa\text{-(BEDT-TTF)}_2\text{Cu}_2(\text{CN})_3$  Studied by Muon Spin Relaxation Method*
- M18. **Naoki Yoneyama**, Tohoku University, Sendai (15 min)  
*Scanning Tunneling Microscopy Study on the Anomalous Metallic Phases in  $\theta\text{-(BEDT-TTF)}_2\text{MZn}(\text{SCN})_4$  ( $\text{M}=\text{Rb}, \text{Co}$ )*
- M19. **Masashi Watanabe**, Tohoku University, Sendai (15 min)  
*X-ray Investigation for  $\alpha'\text{-(BEDT-TTF)}_2\text{BrICl}$  at Low Temperature*

**5:30 Posters**

## Tuesday Morning, September 13

**8:30 to 10:20 Q2D and High B -Chair: F. Pratt**

- T1. **Toshihito Osada**, ISSP Tokyo (30 min)  
*Successive Phase Transitions in Charge Density Wave State under High Magnetic Fields*
- T2. **Pavel D. Grigoriev**, NHMFL (20 min)  
*Phase Diagram of Charge-density-wave State in High Magnetic Field in Quasi-1D Organic Metals*
- T3. **Andrei G. Lebed**, University of Arizona (20 min)  
*Magnetic Field Induced Charge-Density Wave and Exotic Superconducting Phases*
- T4. **Ross D. McDonald**, LANL (20 min)  
*High Magnetic Field Studies of the Fully Gapped Charge-density Wave System  $(Per)_2M(mnt)_2$  (where  $M = Au$  and  $Pt$ )*
- T5. **David Graf**, NHMFL (20 min)  
*Pressure-Induced Quantum Limit in a Q1D CDW System in High Magnetic Fields*

**10:50 to 12:20 Q2D and  $\pi$ -d -Chair: G. Saito**

- T6. **Shinya Uji**, NIMS-Tsukuba (20 min)  
*Does FFLO State Exist in Field-Induced Superconducting Phase of  $\lambda$ -(BETS) $_2$ FeCl $_4$ ?*
- T7. **Ko-ichi Hiraki**, Univ. Joseph Fourier and Grenoble High Magnetic Field Lab. (20 min)  
 *$\pi$ -d Interaction on the Field Induced Superconducting System,  $\lambda$ -(BETS) $_2$ FeCl $_4$ : Studied by  $^{77}\text{Se}$  NMR Measurements*
- T8. **Shigeki Fujiyama**, University of Tokyo (20 min)  
*Microscopic Estimation of Antiferromagnetic Correlation between  $\pi$ -Electrons and  $d$  Local Moments in FISC:  $\kappa$ -(BETS) $_2$ FeBr $_4$*
- T9. **Michael Lang**, J.W. Goethe-University, Frankfurt(M) (20 min)  
*Resistivity Studies on Different Variants of  $\kappa$ -(ET) $_2$ Cu[N(CN) $_2$ ]Br: Evidence for Real-Structure Related Inelastic Scattering Contributions*
- T10. **Syuma Yasuzuka**, Osaka City University (15 min)  
*Anomalous Metallic State in (TTM-TTP)I $_3$  with a Highly One-Dimensional Half-Filled Band under Pressure beyond 7 GPa*

LUNCH/ TUTORIAL

**12:30 – 1:45 Theory**

**Ross McKenzie**, Univ. Queensland

*Tutorial on General Theoretical Approaches to Molecular Materials*

## **Tuesday Afternoon**

### **2:00 to 3:30 Thin Films, Devices, Nanostructures -Chair: N. Kirova**

- T11. **Concepció Rovira**, de Ciència de Materials de Barcelona (CSI) Institut (20 min)  
*Organic Field Effect Transistors Based on Tetrathiafulvalene Derivatives*
- T12. **Nataliya Spitsina**, Russian Academy of Sciences – Institute of Problems of Chemical Physics (20 min)  
*Poly(2-methoxy-5-(2'-ethyl-hexyloxy)-1,4-phenylene vinylene)/azides Derivatives of Fullerene Composites: Optical Characterization and Application in Flexible Polymer Solar Cells*
- T13. **Tomoyuki Akutagawa**, Hokkaido University (20 min)  
*Nanostructures of Molecular Conductors*
- T14. **Kazumasa UEDA**, Shizuoka University (15 min)  
*Conventional Fabrication Method for TCNQ Radical Anion Salts Molecular Wires*
- T15. **Makoto Inokuchi**, Tokyo University of Science, Yamaguchi (15 min)  
*Shear Stress Effect on Thin Films of Platinum Complex  $Pt(dpg)_2$  and Chromic Compounds*

### **4:00 to 5:30 Thin Films, Devices, Nanostructures -Chair: L. Valade**

- T16. **Md. Akhtaruzzaman**, Dept. of Electronic Chemistry, Tokyo Institute of Technology (20 min)  
*Preparation and n-type FET Characteristics of Novel Heterocycles with Trifluoromethylphenyl Groups*
- T17. **Hiroshi M. Yamamoto**, RIKEN, Saitama (20 min)  
*Nano-size Molecular Conductors on Silicon Substrate: Toward Device Integration of Conductive CT Salts*
- T18. **Adam Micolich**, University of New South Wales, Sidney (20 min)  
*Superconductivity in Ion-beam Metal Mixed Polymers*
- T19. **Natalia N. Kirova**, Université Paris-Sud, Orsay (15 min)  
*Electronic States at Junctions of Molecular Semiconductors*
- T20. **Sonal Brown**, University of Tennessee (15 min)  
*In Search of Microscopic Evidence of Molecular Level Negative Thermal Expansion in Fullerenes*

### **5:30 Posters**

### **7:30 PM Meeting of the ISCOM Advisory Committee and Proposals for ISCOM-VII**

## Wednesday Morning, September 14

### 8:30 to 10:20 Superconductivity -Chair: S. Uji

- W1. **Francis Pratt**, Rutherford Appleton Laboratory (30 min)  
*Universal Scaling Relations in Molecular Superconductors*
- W2. **Thierry Giamarchi**, University of Geneva (20 min)  
*Tunnelling in Triplet Superconductors*
- W3. **Hatsumi Mori**, University of Tokyo (20 min)  
*Pressure-induced Superconductivity of  $\beta$ -(meso-DMBEDT-TTF) $_2$ PF $_6$  and Related Materials*
- W4. **Jun Shinagawa**, UCLA (20 min)  
*Spin Pairing of Superconducting State in (TMTSF) $_2$ ClO $_4$  Probed with  $^{77}$ Se Knight Shift Measurements*
- W5. **Eduard Yagubskii**, Russian Academy of Sciences - Institute of Problems of Chemical Physics (20 min)  
*Ambient Pressure Superconductivity in the  $\kappa$ -(BEDT-TTF) $_2$ Cu[N(CN) $_2$ ]Cl Single Crystals*

### 10:50 to 12:20 Superconductivity and Other Properties -Chair: J. Wosnitza

- W6. **Jun-ichi Yamada**, University of Hyogo (20 min)  
*Pressure Effect on BDA-TTP Conductors*
- W7. **Carlos J Gomez-Garcia**, University of Valencia (20 min)  
*New Magnetic Molecular Conductors and Superconductors*
- W8. **Keizo Murata**, Osaka City University (20 min)  
*Is the Two Dimensional Organic Conductor,  $\tau$ -(EDO-S,S-DMEDT-TTF) $_2$  (AuCl $_2$ ) $_{1+y}$ , Clean or Dirty?*
- W9. **Amalia Coldea**, Oxford University (15 min)  
*Tuning Electronic Ground States by Using Chemical Pressure on Quasi-two-dimensional  $\beta''$ -(BEDT-TTF) $_4$ [(H $_3$ O)(Ga/Fe/Cr)(C $_2$ O $_4$ ) $_3$ ] · Y*
- W10. **Charles Agosta**, Dept. of Physics, Clark University (15 min)  
*Incoherent Bragg Reflection and Fermi Surface Hot Spots in  $\kappa$ -(BEDT-TTF) $_2$ Cu(NCS) $_2$*

## LUNCH/TUTORIAL

### 12:30 – 1:45 Molecular Magnetism

**Marshall Luban**, AMES Laboratory

*An Introduction to the Major Issues of High-Symmetry (Rings and Clusters) Magnetic Molecules*

## Wednesday Afternoon

**2:00 to 3:30 Molecular Magnetism I -Chair: M. Pederson**

- W11. **Enrique del Barco**, University of Central Florida (20 min)  
*Microwave Studies of High-Spin Superposition States of Single-Molecule Magnets*
- W12. **Christophe Faulmann**, LCC-Toulouse (20 min)  
*Spin Transitions in  $M(dmit)_2$  Complexes*
- W13. **Masahiro Yamashita**, Tohoku University (20 min)  
*A Novel System of Single-Chain Quantum Magnet: Twisted XY Easy-Plane Anisotropy Model and Photo-Induced Switching between Quantum Magnet and Paramagnet*
- W14. **Lahcène Ouahab**, University of Rennes (15 min)  
*Towards High Spin Single Molecules with Redox Active Ligands Derived from TTFs: First trinuclear paramagnetic transition metal complexes*
- W15. **Wakako Kaneko**, Kyoto University (15 min)  
*Magnetic and Magneto-optical Properties of Cyanide-Bridged  $M(II)Cr(III)$  ( $M = Ni, Mn$ ) Assemblies with Triamine Co-ligand*

**3:30 FREE TIME**

## Thursday Morning, September 15

### 8:30 to 10:20 Molecular Magnetism II -Chair: P. Kögerler

- Th1. **Joris van Slageren**, Universität Stuttgart (30 min)  
*Frequency Domain Magnetic Resonance Spectroscopy on Molecular Magnets*
- Th2. **Steve Hill**, University of Florida (20 min)  
*Molecular control of the quantum dynamics of single-molecule magnets*
- Th3. **John Schlueter**, Argonne National Labs (20 min)  
*Novel Polymeric Magnets Based on Fluoride or Bifluoride Anions and Ancillary Organic Ligands*
- Th4. **Jürgen Schnack**, Universität Osnabrück (20 min)  
*Frustration Effects in Magnetic Molecules*
- Th5. **Hideki Yamochi**, Kyoto University (20 min)  
*(TP-EDOT)<sub>2</sub>PF<sub>6</sub> – Two Dimensional Spin Array in a Three Dimensional Lattice*

### 10:50 to 12:20 Models: Theory and Experiment -Chair: T. Giamarchi

- Th6. **Ben J. Powell**, University Queensland, Brisbane (20 min)  
*Half-Filled Layered Organic Superconductors and the Resonating-Valence-Bond Theory of the Hubbard-Heisenberg Model*
- Th7. **Kazushi Kanoda**, University Tokyo (20 min)  
*Exotic Phases of Highly Correlated Electrons on Triangular Lattice in ET salts*
- Th8. **Chisa Hotta**, Aoyama-Gakuin University (20 min)  
*Introduction of Localized Spins to Strongly Correlated One-Dimensional Electronic System at Quarter Filling*
- Th9. **Mark Pederson**, NRL (20 min)  
*Calculation of Magnetic Anisotropies and Exchange Hamiltonians in Molecules with Density Functional Theory*
- Th10. **Annette Bussmann-Holder**, Max-Planck-Inst. for Solid State Research, Stuttgart (15 min)  
*Spin-lattice Interactions in Strongly Correlated Electronic Systems*

## LUNCH/ TUTORIAL

### 12:30 – 1:45 Optical Methods in Molecular Systems

**Janice Musfeldt**, University of Tennessee  
*Tutorial on Optical Methods in Molecular Materials*

## Thursday Afternoon

**2:00 to 3:30 Q1D I -Chair: T. Osada**

- Th11. **Andrei Kornilov**, Lebedev Institute (20 min)  
*Rapid Oscillations in  $(TMTSF)_2PF_6$*
- Th12. **Heonick Ha**, Harvard University (20 min)  
*Angular Magnetoresistance Experiments in  $(TMTSF)_2ClO_4$ : Interference Commensurate Effect and Dimensional Crossover*
- Th13. **Susumu Takahashi**, University of Florida (15 min)  
*Study of Periodic Orbit Resonances in  $(TMTSF)_2ClO_4$*
- Th14. **Gladys E. Leon**, Université de Genève (15 min)  
*Hall Effect in Quasi-One-Dimensional Organic Conductors*
- Th15. **TBA**, \_ (20 min)  
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**4:00 to 5:35 Q1D II and Coherence/Incoherence -Chair: R. McKenzie**

- Th16. **Kensuke Kobayashi**, Grad. School of Science, Osaka City University (15 min)  
*Quantum Critical Point in the Quasi 2D Conductor,  $(Me-DH-TTP)_2AsF_6$*
- Th17. **John Singleton**, Los Alamos National Laboratory (20 min)  
*The Coherence Conundrum in BEDT-TTF Superconductors; How Does Interlayer Transport Die as Temperature Rises?*
- Th18. **Mark V. Kartsovnik**, Walther-Meissner-Institut (20 min)  
*Breakdown of the Interlayer Coherence as Seen in Magnetotransport*
- Th19. **Jochen Wosnitza**, Hochfeld-Magnetlabor Dresden (20 min)  
 *$\beta''$ - $(ET)_2SF_5CH_2CF_2SO_3$  – a Model System for a Layered 2D Metal with Vanishing Interlayer Coupling*

**5:35 Posters**

**7:30 Banquet**

7:30 Presentation of the Jack Crow Award

7:35 *From de Leon to Crow: a Brief Look at Florida from Exploration to Science*,  
**D. K. Roberts**, English Dept., University of Alabama, and NPR, BBC.

7:50 Dinner

## Friday Morning, September 16

**8:30 to 10:20 Charge Order and Phase Transitions -Chair: K. Kanoda**

- F1. **Natalia Drichko**, Universität Stuttgart (30 min)  
*Comprehensive Optical Investigations on the Influence of Electronic Correlations in  $\alpha$ -(BEDT-TTF)<sub>2</sub>MHg(SCN)<sub>4</sub> (M=NH<sub>4</sub>, K, Tl, Rb)*
- F2. **Manuel Almeida**, Dept. Química, ITN (20 min)  
*Salts Based on DT-TTF and Metal bisdichalcogenene complexes; Multistability in (DT-TTF)<sub>4</sub>[M(L)<sub>2</sub>]<sub>3</sub> (M=Au, Cu; L=pds, pdt, bdt)*
- F3. **Hiroshi Sawa**, KEK (20 min)  
*Role of Frustration in Quasi 1D Conductor – Charge Ordering and/or CDW in (R1,R2-DCNQI)<sub>2</sub>M (M=Ag, Li, Cu) System*
- F4. **Torsten Clay**, Mississippi State University (20 min)  
*Theory of Giant Spin Gaps in 1/4-filled Ladders*
- F5. **TBA**

**10:50 to 12:15 Charge Order and Phase Transitions -Chair: L. Ouahab**

- F6. **Fumitaka Kagawa**, University of Tokyo (20 min)  
*Mott Transition and Its Novel Criticality in  $\kappa$ -(ET)<sub>2</sub>Cu[N(CN)<sub>2</sub>]Cl Investigated by Transport and NMR Measurements*
- F7. **Pierre Monceau**, Grenoble-CNRS (20 min)  
*Charge Ordering and Ferroelectric Transition in (TMTTF)<sub>2</sub>X Quasi-One-Dimensional Conductors*
- F8. **Serguei Brazovskii**, LPTMS-CNRS Orsay (20 min)  
*Problems in the Picture of Quasi 1D Organic Conductors in Light of Observations of the Ferroelectricity and the Charge Ordering*
- F9. **Takahiko Sasaki**, Tohoku University (20 min)  
*Electrical Inhomogeneity at the Mott Transition in the Band Width Controlled  $\kappa$ -(BEDT-TTF)<sub>2</sub>Cu[N(CN)<sub>2</sub>]Br*
- F10. **Fan Zhang**, UCLA (15 min)  
*NMR Studies of Charge Ordering and the Effect of Lattice Coupling in Quasi-1D Molecular Conductors*

**12:15 Closing Ceremony: Batail and McKenzie**