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## 研究会報告

# New Developments in Strongly Correlated Electron Systems

— 強相関電子系における新展開 —

(2001年5月10日受理)

2001年3月5日 - 3月7日  
京都大学基礎物理学研究所

広い意味の「強相関電子系」における最近の話題について、レビュー講演や最新の成果報告からなる小規模の研究会を行なった。活発な議論が行なわれるように時間配分に余裕をもたせ、世話人の判断で、講演者と参加者は主に活躍中の若手研究者に限定した。実質的に、3月で基研を去った Sigrist 氏の farewell workshop となった。(文責：古崎 昭)

世話人： M. Sigrist (京大基研), 古崎 昭 (京大基研)

### March 5, Monday

13:25 - 13:30: Opening Address

Chairman: M. Sigrist

13:30 - 14:15: M. Imada  
*Bandwidth controlled metal-insulator transitions*

14:15 - 15:00 M. Tanatar  
*Thermal conductivity of  $Sr_2RuO_4$  under oriented magnetic field*

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15:00 - 16:00 coffee break and posters

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16:00 - 16:45 A. Lebed  
*Determination of a triplet superconducting order parameter by analyzing the upper critical magnetic field measurements*

16:45 - 17:30 Y. Kato  
*Vortex Core of chiral p-wave superconductors*

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18:00 - Party at YITP and posters

## March 6, Tuesday

Chairman: K. Kuboki

9:00 - 9:45 N. Nagaosa  
*Extended critical phenomenon, spin chirality,  
and transport and optical properties*

9:45 - 10:30 T. Tohyama  
*Optical properties in 1D and 2D insulating cuprates*

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10:30 - 11:00 coffee break and posters

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11:00 - 11:45 M. Ogata  
*Stripe states and phase separation in t-J model*

11:45 - 12:30 N. Furukawa  
*Critical phenomena of the double exchange model*

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12:30 - 14:00 Lunch and posters

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Chairman: H. Kohno

14:00 - 14:45 K. Ueda  
*Two- and three dimensional frustrated spin systems*

14:45 - 15:30 A. Koga  
*Frustrated Heisenberg antiferromagnet on the pyrochlore lattice*

15:30 - 16:15 H. Tsunetsugu  
*Quantum ground state of antiferromagnet on the pyrochlore lattice*

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16:15 - 17:00 coffee break and posters

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17:00 - 17:45 M. Oshikawa  
*Field-theory approach to ESR in quantum spin chains*

17:45 - 18:30 T. Morinari  
*Pairing mechanism for high- $T_c$  cuprates*

### March 7, Wednesday

Chairman: K. Kusakabe

9:00 - 9:45 H. Kontani  
*Theory of magnetoresistance: The origin of the modified Kohler's rule in high- $T_c$  cuprates*

9:45 - 10:30 Y. Tanaka  
*Recent topics in unconventional superconducting junctions*

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10:30 - 11:00 coffee break and posters

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11:00 - 11:45 T. Fukui  
*Quasiparticle states in dirty d-wave superconductors*

11:45 - 12:30 A. Furusaki  
*Anderson localization of quasiparticles in disordered superconducting quantum wires*

12:30 - 12:35 Closing