

11th RAP Seminar

The 11th Seminar on RIKEN Center for Advanced Photonics

Language: Japanese

Date : Apr.18 (Fri), 2014, 16:00 ~ 17:00

Location : **Okochi Hall, Wako Campus, RIKEN**
(理研 和光キャンパス 大河内ホール)

Title : **Electromagnetic Responses
of Topological Spin Textures**

固体のトポロジカルスピン構造とその電磁応答

Speaker : **Dr. Yoshinori TOKURA**

(Director of RIKEN Center for Emergent Matter Science (CEMS))

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In addition to orthodox magnetic structures such as ferromagnetic and antiferromagnetic ones, new nontrivial forms of magnetic order have recently been found to host novel electromagnetic functions. We overview such emergent topological spin textures formed in magnets and their photo-dynamics. These include (1) photo-induced phase transitions in correlated-electron oxides with complex spin-orbital orders, (2) electrically-active magnetic resonances -*electromagnons* – in multiferroics (materials with both ferroelectric and magnetic orders) and novel magnetoelectric optics, and (3) skyrmions or topological magnetic bubbles and photo-control of their dynamics.