1. Topological insulators.

2. Graphene.

3. Quantum Hall effects and its connection to topology.

4. Quantum spin liquids.

5. Mott insulators.

6. High Tc superconductors - cuprates and pnictides.

7. Superconductivity under pressure.

8. Weyl semimetals.


10. Room Tc superconductivity in ultrafast experiments.

11. 2D electron gas in correlated materials.

12. Thermal Hall effect.

13. Quantum phase transitions and its connection to early universe.

14. Heavy fermion compounds.

15. Multiferroics.