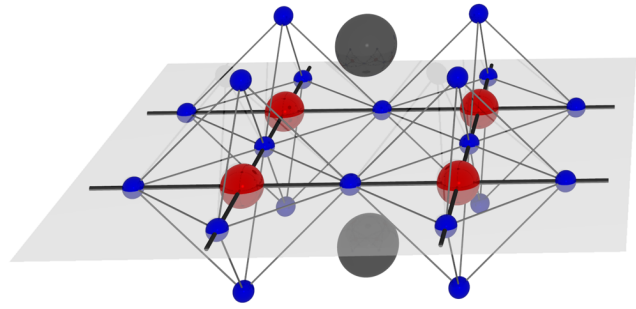


SRO₂1⁺4



Strontium Ruthenate

25 years of a puzzling superconductor

Zurich

May 9-11, 2019

PAULI CENTER
for Theoretical Studies



Workshop Program

Thursday

Location: HIT E51

09:00-09:10 Opening

09:10-12:30 New Experimental Techniques: Straining and Microstructures

chair: Fuchun Zhang

09:10 - 10:00 Andrew Mackenzie

Overview of some recent experimental advances in Sr_2RuO_4

10:00 - 10:30 Annika Black-Schaffer

Odd-frequency superconductivity in Sr_2RuO_4 measured by Kerr effect

10:30 - 11:00 Coffee break

11:00- 11:30 Philipp Moll

Sr_2RuO_4 on the mesoscale: A FIB approach

11:30-12:00 Kyle Shen

Thin film engineering of superconductivity in ruthenates

12:00-12:30 Clifford Hicks

Evaluation of chiral superconductivity in Sr_2RuO_4 , including new results from μ SR under uniaxial stress

12:30-14:00 Lunch break

14:00-17:20 Pairing Symmetry

chair: Dirk Manske

14:00-14:50 Yoshiteru Maeno

Paradigm shift toward the clarification of the superconductivity in Sr_2RuO_4

14:50-15:20 Shunichiro Kittaka

Thermodynamic study of the pairing symmetry in Sr_2RuO_4

15:20-15:50 Coffee break

15:50-16:20 Elena Hassinger

Directional thermal conductivity of Sr_2RuO_4 : Evidence for vertical line nodes

16:20-16:50 Aline Ramires

The order parameter of Sr_2RuO_4 : A microscopic perspective

16:50-17:20 Brad Ramshaw

Multi-component superconducting order parameter observed with resonant ultrasound spectroscopy

17:30 - Poster Session

Friday

Location: HIT E51

08:30-12:20 Mechanisms and Microscopic Approach

chair: Andrea Damascelli

08:30-09:20 Steve Kivelson
Some principles of the theory of unconventional superconductivity

09:20-09:50 Ronny Thomale
Towards a microscopic theory of unconventional superconductivity in Sr_2RuO_4

09:50-10:20 Markus Braden
Magnetic excitations and their possible role in the superconducting pairing in Sr_2RuO_4

10:20-10:50 Coffee break

10:50-11:20 Vidya Madhavan
Fourier transform scanning tunneling spectroscopy measurements of Sr_2RuO_4

11:20-11:50 Hae-Young Kee
Role of Spin-Orbit Coupling in Sr_2RuO_4

11:50-12:20 Felix Baumberger
Electronic correlations and enhanced spin-orbit coupling in Sr_2RuO_4 determined from high-resolution laser-based ARPES

12:20-14:00 Lunch break

14:00-17:20 Spin Configuration

chair: Antoine George

14:00-14:50 Kenji Ishida
NMR and NQR Studies on Sr_2RuO_4

14:50-15:20 Stuart Brown
Reduced ^{17}O NMR Knight shifts in the superconducting state of stressed and unstressed Sr_2RuO_4

15:20-15:50 Coffee break

15:50-16:20 Suk-Bum Chung
Cooper pair spin current in Sr_2RuO_4

16:20-16:50 Shingo Yonezawa
Superconducting anisotropy of Sr_2RuO_4 under in-plane magnetic field and current

16:50-17:20 Muhammad S. Anwar
Superconducting proximity effect in Sr_2RuO_4 based devices

17:20-18:00 Discussions

18:00-..... Apero & Poster Session

Saturday

Location: HIL E6

09:00-12:20	Topology
chair: Andreas Schnyder	
09:00-09:50	Catherine Kallin <i>Topology, edge currents and related issues in Sr₂RuO₄</i>
09:50-10:20	Daniel Agterberg <i>Topologically protected Bogoliubov Fermi surfaces</i>
10:20-10:50 Coffee break	
10:50-11:20	Adrien Bouhon <i>Bulk-boundary correspondence for the chiral superconducting state at edges and domain walls</i>
11:20-11:50	Ying Liu <i>Superconductivity in bulk and mesoscopic Sr₂RuO₄</i>
11:50-12:20	Satoshi Kashiwaya <i>Josephson and tunneling effects of Sr₂RuO₄</i>
12:20	Conclusion

