PROGRAMME (Tentative, Last updated: 29 Nov 2017)

Day 1 (December 5, Tuesday)

08:30 - 08:50 Registration
08:50 - 09:00 Opening and Welcome Speech, by Shizhong Zhang

Morning session 1: Synthetic Quantum Matter
Chaired by Xiwen Guan (Wuhan Institute of Physics and Mathematics, Chinese Academy of Sciences)

09:00 - 09:40 New Synthetic Quantum Systems with Ultracold Two-electron Fermions
Leonardo Fallani (University of Florence)
09:40 - 10:20 Building Quantum Matter from Light
Jonathan Simon (University of Chicago)

10:20 - 11:00 Tea Break

11:00 - 11:40 Monopoles and Instantons in Cold Atoms
Tin-Lun Ho (The Ohio State University)

12:00 - 14:00 Lunch

Afternoon session 2: Ultracold Fermi Gases
Chaired by Peng Zhang (Renmin University)

14:00 - 14:40 One, Two, Three, Many: Few Body Losses in Many-body Ensembles
Frédéric Chevy (Ecole Normale Supérieure)
14:40 - 15:20 N Component Fermi Gas
Sungkit Yip (Institute of Physics, Academia Sinica)

15:20 - 16:00 Tea Break

16:00 - 16:40 Prethermalization in Ultracold Fermi Gases
Miguel Cazalilla (National Tsing Hua University)

Day 2 (December 6, Wednesday)

Morning session 3: Quantum Mixtures and P-wave Fermi Gas
Chaired by Zhenhua Yu (Sun Yat-Sen University)

09:00 - 09:40 Quantum Liquid Droplets in a Mixture of Bose-Einstein Condensates
Leticia Tarruell (ICFO-The Institute of Photonic Sciences)
09:40 - 10:20 High Temperature Pairing in a Strongly Interacting Two-dimensional Fermi Gas
Selim Jochim (Heidelberg University)

10:20 - 11:00 Tea Break

11:00 - 11:40 P-wave Topological Superfluid of Atomic Fermions in a Lattice
Georgy Shlyapnikov (LPTMS, Orsay, France)

12:00 - 14:00 Lunch

Afternoon session 4: Quantum Mixtures and P-wave Fermi Gas
Chaired by Zhenhua Yu (Sun Yat-Sen University)

14:00 - 14:40 One Dimensional Fermi Gases Near P-wave Resonance
Xiaoling Cui (Institute of Physics, Chinese Academy of Sciences)

15:20 - 17:30 Poster Session (Coffee served)

18:00 - 22:00 Banquet at Shanghai Min 1987

Day 3 (December 7, Thursday)

Morning session 5: Ultracold Molecules
Chaired by Wenxian Zhang (Wuhan University)

09:00 - 09:40 Quantum Control of Ultracold Molecular Samples
Hanns-Christoph Nägerl (University of Innsbruck)
09:40 - 10:20 State-to-state Ultracold Reaction with Weakly Bound $^{23}Na^{40}K$ Feshbach Molecules
Bo Zhao (University of Science and Technology of China)

10:20 - 11:00 Tea Break

11:00 - 11:40 Collisions of Ultracold NaRb Molecules
Dajun Wang (The Chinese University of Hong Kong)

12:00 - 14:00 Lunch

Afternoon session 6: Topological States in Cold Atoms
Chaired by Lih-King Lim (Institute for Advanced Study, Tsinghua University)

14:00 - 14:40 Topology and Ultracold Quantum Gases in Driven Optical Lattices
Klaus Sengstock (Universitaet Hamburg)
14:40 - 15:20 Synthetic Two-dimensional Spin-orbit Coupling in Ultracold Fermi Gases
Jing Zhang (Shanxi University)

15:20 - 16:00 Tea Break

16:00 - 16:40 Synthetic Topological Matter with Spin-orbit-coupled Ultracold Fermions in Optical Lattices
Gyu-Boong Jo (Hong Kong University of Science and Technology)

Day 4 (December 8, Friday)

Morning session 7: Magnetism in Optical Lattices
Chaired by Shizhong Zhang (The University of Hong Kong)

09:00 - 09:40 Microscopy of Fermi-Hubbard and Transverse Ising Systems
Peter Schauss (Princeton University)
09:40 - 10:20 Kondo Physics with Cold Atoms
Hui Zhai (Institute for Advanced Study, Tsinghua University)

10:20 - 11:00 Tea Break

11:00 - 11:40 Two- and three-body Problem with Floquet-driven Zero-range Interactions
Dmitry Petrov (LPTMS, CNRS, Orsay, France)

12:00 - 14:00 Lunch

Afternoon session 8: Transport Properties of Fermions in Optical Lattices
Chaired by Yu Wang (Wuhan University)

14:00 - 14:40 "Optical" Conductivity of Fermions in an Optical Lattice
Joseph Thywissen (University of Toronto)
14:40 - 15:20 Spin and Charge Correlations and Transport in the 2D Fermi-Hubbard Model
Lawrence Cheuk (Harvard University)

15:20 - 16:00 Tea Break

16:00 - 16:40 **Conclusions**