Day 1: Wednesday 4 Nov. 2020

1. Opening (chair: OSHIMA Takeshi, QST, Japan)
   14:00 - 14:05 Opening Address (ITOH Hisayoshi, QST, Japan)
   14:05 - 14:15 Opening Remarks (HIRANO Toshio, QST, Japan)
   14:15 - 14:20 Greeting (YAMAMOTO Ichita, Gunma Prefectural Government, Japan)
   (TBC)
   14:20 - 14:25 Greeting (ITAKURA Yasuhiro, Ministry of Education, Culture, Sports, Science and Technology, Japan)

2. Plenary Talk 1 (chair: HATANO Mutsuko, Tokyo Institute of Technology / QST, Japan)
   14:30 - 15:20 “Probing material properties with a nanoscale quantum sensor”
   WRACHTRUP Jörg, The University of Stuttgart, Germany

   15:20 - 15:30 Coffee Break

3. Plenary Talk 2 (chair: ITOH Hisayoshi, QST, Japan)
   15:30 - 16:20 “Emergent phenomena and functions of topological magnets”
   TOKURA Yoshinori, The University of Tokyo / RIKEN, Japan

   17:00 - 19:00 Online Social Gathering

Day 2: Thursday 5 Nov. 2020

4. Session 1: Materials for Quantum Sensing I (chair: OSHIMA Takeshi, QST, Japan)
   13:00 - 13:40 Keynote Lecture
   “Quantum Diamond Sensors”
   WALSWORTH Ronald, University of Maryland, USA
13:40 - 14:10 “Bright colour centers for quantum biophotonics applications”
        Gibbon Brant, RMIT University, Australia
14:10 - 14:40 “Exploration of various color centers in diamond for quantum applications”
        Meijer Jan, University of Leipzig, Germany

14:40 - 15:00 Coffee Break

5. Session 2: Materials for Quantum Sensing II (chair: Ohshima Takeshi, QST, Japan)
   15:00 - 15:30 “Diamond spin defects for quantum sensing and quantum network”
        Iwasaki Takayuki, Tokyo Institute of Technology, Japan
   15:30 - 16:00 “Creation of spin defects in silicon carbide for quantum sensing”
        Ohshima Takeshi, QST, Japan

16:00 - 16:20 Coffee Break

6. Session 3: Quantum Beam Analysis for Materials Science I (chair: Katayama Yoshinori, QST, Japan)
   16:20 - 17:00 Keynote Lecture
        “Incorporating magnetism into topological quantum materials for innovative functions”
        Kimura Akio, Hiroshima University, Japan
   17:00 - 17:30 “Imaging of three-dimensional magnetic systems with X-rays”
        Donnelly Claire, University of Cambridge, UK
   17:30 - 18:00 “Investigations on local magnetic properties of magnetic thin films using synchrotron-radiation Mössbauer spectroscopy”
        Mitsui Takaya, QST, Japan

18:30 - 20:00 Poster Session (tentative)

Day 3: Friday 6 Nov. 2020

7. Session 4: Quantum Beam Analysis for Materials Science II (chair: Maekawa Yasunari, QST, Japan)
   13:00 - 13:30 “Positron diffraction (TRHEPD and LEPD) for the surface structure analysis”
        Hyodo Toshio, KEK, Japan
13:30 - 14:00 "Spintronics materials studied by spin-polarized positron beam"
   KAWASUSO Atsuo, QST, Japan

14:00 - 14:20 Coffee Break

8. Session 5: Materials for Spintronics I (chair: WATANUKI Tetsu, QST, Japan)
   14:20 - 15:00 Keynote Lecture
      “Spin orbit torque devices using quantum topology materials”
      YANG Hyunsoo, National University of Singapore, Singapore
   15:00 - 15:30 “Development of novel graphene-based heterostructures for spintronic applications”
      SAKAI Seiji, QST, Japan

15:30 - 15:50 Coffee Break

9. Session 6: Materials for Spintronics II (chair: SAKAI Seiji, QST, Japan)
   15:50 - 16:20 “Hyperfine-mediated transport properties in semiconductor quantum systems”
      HIRAYAMA Yoshiro, Tohoku University, Japan
   16:20 - 16:50 “Interface spin-orbit coupling in magnetic tunnel junctions”
      MITANI Seiji, NIMS, Japan
   16:50 - 17:20 “Spin current physics and materials”
      SAITO Eiji, The University of Tokyo, Japan

10. Summary Talk (chair: SATOH Takahiro, QST, Japan)
    17:20 - 17:40 ITOH Hisayoshi, QST, Japan

11. Closing (chair: SATOH Takahiro, QST, Japan)
    17:40 - 17:45 Closing Remarks (NODA Koji, QST, Japan)