22nd Workshop on Quasicrystal
- the State of the Art-
5-6, March 2018
Place: TOKYO ELECTRON House of Creativity 3 floor, TOHOKU Univ.
Organization: IMRAM
Sponsors: Dynamic Alliance for Open Innovation Bridging Human, Environment and Materials
             Network Joint Research Center for Materials and Devices
             Tohoku Branch, JIM
             TOKYO ELECTRON House of Creativity

5 Monday, March

13:30-13:35 Opening Address: An-pang TSAI (Tohoku Univ.)

Session 1  13:35-14:50 Chair: Yoshiki TAKAGIWA (NIMS)

13:35 Hiroyuki TAKAKURA (Hokkaido Univ.)
X-ray multiple-diffraction in Zn-Sc icosahedral quasicrystal

13:55 Yeong-Gi SO (Akita Univ.)
Direct observation of defect structures in Tsai-type approximants using STEM

14:15 Tunetomo YAMADA (Tohoku Univ.)
Atomic structure of the Au-Ga-Yb 1/1 approximant (15m)

14:30 Tsutomu ISHIMASA (Toyota Physical and Chemical Research Institute)
Structure modeling of new type of dodecagonal quasicrystal

14:50〜15:10 Coffee break

Session 2  15:10-17:00 Chair: Kazue NISHIMOTO (Tohoku Univ.)

15:10 Kotoba TOYONAGA (Hokkaido Univ.)
Investigation of growth conditions of Al-Cu-Ru icosahedral quasicrystals from self-fluxes.

15:30 Jhon-ren HUANG (Tohoku Univ.)
Self-organization of Al2O3/Quasicrystal composite by oxidation of ω-AlCuFe
15:50 Satoshi OHHASHI (Tohoku Univ.)
Preparation of Zn-Mg-Yb quasicrystal and Mg alloys by means of melt spinning system

16:10 Koichi KITAHARA (The University of Tokyo)
Introduction of Quasicrystalline Structure Visualization Tool on Web Browser (10m)

16:20 Keisuke IDA and Keiichi EDAGAWA (Institute of Industrial Science, Univ. Tokyo)
MD simulation of growth process of decagonal quasicrystals

16:40 Nobuhisa FUJITA (Tohoku Univ.)
Model single-component icosahedral quasicrystal
6 Tuesday, March

Session 3  9:20-10:20  Chair: Kaoru KIMURA (The University of Tokyo)

9:20  K. IMAZAWA and Y. ISHII (Chuo Univ.)
Dynamical Flexibility in AlCuFe approximant

9:40  Kazuki NOZAWA (Kagoshima Univ.)
Atomic structure of quasiperiodic Bi ultra-thin film formed on Ag-In-Yb quasicrystalline substrate

10:00  Akiji YAMAMOTO (NIMS)
Band calculations in quasicrystals: pseudopotential method

10:20～10:40  Coffee break

Session 4  10:40-11:55  Chair: Hiroyuki TAKAKURA (Hokkaido Univ.)

10:40  Alok SINGH (NIMS)
Nucleation of magnesium crystals over icosahedral phase during severe plastic deformation of Mg-Zn-Y alloy

11:00  Farid LABIB (Tohoku Univ.) (15m)
Phase formation in Mg-Cd-Y system

11:15  Takanobu HIROTO (NIMS)
Search for stable Ga-based quasicrystals and new intermetallic compounds

11:35  Yutaka IWASAKI (The University of Tokyo)
Thermoelectric Properties and Search for condition of insulator transition in Al-Ir based approximants

11:55～13:30  Lunch
Session 5  13:30-14:50  Chair: Keiichi EDAGAWA (The University of Tokyo)

13:30 Akira SAKURAI (Tokyo University of Science)
Synthesis and magnetic properties of the Au-Al-Tb 1/1 crystalline approximant

13:50 Kazuki INAGAKI (Tokyo University of Science)
Synthesis and magnetic properties of the Au-Ga-Tb 1/1 crystalline approximant

14:10 Kazuhiko DEGUCHI (Nagoya Univ.)
Magnetism and electronic state in icosahedral Au-Ga-Yb quasicrystal and approximant

14:30 Keiichiro IMURA (Nagoya Univ.)
Resonant x-ray emission spectroscopy on Yb-based quasicrystals

14:50〜15:10  Coffee break

Session 6  15:10-16:30  Chair: Ryuji TAMURA (Tokyo University of Science)

15:10 Takayuki SHINO (Nagoya Univ.)
Spin-glass quantum criticality in heavy-fermion system Ag-In-Ce

15:30 Noriaki SATO (Nagoya Univ.)
Low temperature properties of Zn-Ag-Sc quasicrystals and approximants

15:50 Takanori SUGIMOTO (Dep. of Applied Physics, Tokyo University of Science)
Effect of Quasiperiodic Potential in One-Dimensional Topological Superconductor

16:10 Taku J Sato (Tohoku Univ.)
Magnetic structure in the Au-Al-Tb approximant

16:30〜16:50  Coffee break

Session 7  16:50-17:20  Chair: Yasushi ISHII (Chuo Univ.)
Invited Speak

16:50 Ryo Yoshida (ISM) (30m)
Machine learning for materials discovery

(The End)

17:30〜19:00  B3nquet (TOKYO ELECTRON House of Creativity 1 floor)