Geometry on Real Closed Field and its Application to Singularity Theory

at Room 111
Research Institute of Mathematical Sciences (RIMS), Kyoto University
organised by
Satoshi Koike   (Hyogo University of Teacher Education)

PROGRAMME

30th November (Tuesday)

13:15 – 14:15   Masahiro Shiota (Nagoya University)
A history of real closed fields

14:45 – 15:45   Shuzo Izumi (Kinki University)
Annihilating systems and projectors of spaces of multivariate functions

16:00 – 17:00   Shoji Yokura (Kagoshima University)
Natural transformation associated with additive homology class

1st December (Wednesday)

9:30 – 10:30   Ta Lê Loi (University of Dalat, Vietnam)
Three fundamental theorems of Singularity Theory
in o-minimal structures

10:45 – 11:45   Clint McCrory (University of Georgia, United States)
The topology at infinity of nonsingular real algebraic varieties

13:15 – 14:15   Masahiro Shiota (Nagoya University)
Applications of real closed fields

14:45 – 15:45   Kyoji Saito (Institute for the Physics and Mathematics of the Universe)
The vanishing cycles of type $A_{\frac{1}{2}\infty}$ and $D_{\frac{1}{2}\infty}$

16:00 – 17:00   Yutaka Matsui (Kinki University)
Topological Radon transforms and k-dual varieties

2nd December (Thursday)

9:30 – 10:30   Tadashi Ishibe (Hiroshima University)
                A Zariski-van Kampen presentation of elliptic Artin group

10:45 – 11:45   Lê Dũng Tráng (Université de Provence, France)
                Polar curves and hypersurface singularities

13:15 – 14:15   Mutsuo Oka (Tokyo University of Science)
                Construction of degree 1 mixed curve for a Riemannian surface
                with arbitrary genus

14:30 – 15:30   Katsusuke Nabeshima (Tokushima University),
                Yayoi Nakamura (Kinki University),
                Shinichi Tajima (Tsukuba University)
                On an implementation of standard bases and Groebner bases
                using algebraic local cohomology

15:45 – 16:45   Takashi Nishimura (Yokohama National University)
                On the minimal number of generators of the module of liftable
                vector fields over a finitely determined multigerm

18:30 –   Conference dinner

3ed December (Friday)

9:30 – 10:30   Jiro Adachi (Hokkaido University)
                A certain surgery construction of contact 3-manifolds

10:45 – 11:45   Goo Ishikawa (Hokkaido University)
                Basic topics on tropical geometry and singularities

13:15 – 14:15   Minoru Yamamoto (Aichi University of Education)
                On immersed oriented surfaces and their plane projections

14:30 – 15:30   Toshizumi Fukui (Saitama University)
                Criteria of singularities and an application to differntial geometry