RIMS Symposium
Computer Algebra – Theory and its Applications

Date: December 21 (Mon) – 23 (Wed), 2020

Organizers: Masayo Fujimura (National Defense Academy, chair)

             Takuya Kitamoto (Yamaguchi University)

This symposium will be held online using Zoom Webinar, and all talks will be given in Japanese.

To join the symposium, please register at `https://forms.gle/UEUwWmQe51n17ET88` by December 14.

After December 15, please contact `comp-alge-rims@googlegroups.com` by email.

Program

December 21 (Mon)

13:00〜13:10   Opening

13:10〜13:40   Katsusuke Nabeshima (Tokushima University)*, Shinichi Tajima (Niigata University)◇
              Computation of Noether operators associated to zero-dimensional primary ideals

13:40〜14:10   Kosaku Nagasaka (Kobe University)
              Toward finding better approximate GCD with NewtonSLRA

14:10〜14:40   Discussion on this session

15:00〜15:30   Ryo Oshimatani*, Kosaku Nagasaka (Kobe University)
              Term order for Groebner basis, revisited

15:30〜16:00   Tomohiro Washino*, Tadashi Takahashi (Konan University)
              On the analysis of singularity structure in learning

16:00〜16:30   Discussion on this session

December 22 (Tue)

10:00〜10:30　Kazuki Okuda*, Kiyoshi Shirayanagi (Toho University)
　　　　　　　Application of the ISCZ method to three-dimensional convex hull construction

10:30〜11:00　Shota Narisawa*, Kiyoshi Shirayanagi (Toho University)
　　　　　　　Crystal basis of an extremal weight module over a quantum group of type A and
　　　　　　　the hive model

11:00〜11:30　Tateaki Sasaki*◇, Masaru Sanuki (University of Tsukuba),
　　　　　　　Daiju Inaba (Japan Association of Mathematics Certification),
　　　　　　　Fujio Kako (Nara Women's University)
　　　　　　　Towards fast method of variable elimination of sparse multivariate polynomial systems (II)

11:30〜12:00　Discussion on this session

12:00〜13:10　Free discussion (Using the breakout rooms in Zoom meeting)

13:10〜13:40　Masumi Kameda (Sanyo-Onoda City University)*, Mitsuru Udagawa (Niigata University)
　　　　　　　Use of mathematical commands in simultaneous interactive distance learning
　　　　　　　- Communicating through TeX and Maxima commands -

13:40〜14:10　Shuichi Moritsugu (University of Tsukuba)
　　　　　　　Computing the integrated formulae for cyclic heptagons and octagons

14:10〜14:40　Discussion on this session

15:00〜15:30　Hiromi Ishii (DeepFlow, Inc.)
　　　　　　　Smooth infinitesimal analysis with automatic differentiation and Gröbner basis

15:30〜16:00　Naruki Taniguchi (Rikkyo University)
　　　　　　　On the stability of Groebner bases of ideals with single parametric exponent

16:00〜16:30　Discussion on this session

December 23 (Wed)

10:00〜10:30　Ryoya Fukasaku (Kyushu University)*, Shinichi Tajima (Niigata University)◇
　　　　　　　Implementation of criteria for simple Hopf bifurcations

10:30〜11:00　Hiroki Mukai*, Katsuyoshi Ohara (Kanazawa University),
　　　　　　　Kazuhiro Yokoyama (Rikkyo University)
　　　　　　　Signature-based algorithm on non-commutative rings and its implementation

11:00〜11:30　Masayuki Noro*, Kazuhiro Yokoyama (Rikkyo University)
　　　　　　　Implementation of a signature based algorithm in Risa/Asir

11:30〜12:00　Discussion on this session

(*: Speaker, ◇: Emeritus professor)