(As of September 14, 2014)

# Kyoto Conference on Numerical Analysis and Differential Equations (KCNADE) 2014

Sep. 16–20, 2014.
Raku-Yu Kaikan, Kyoto University.

**In celebration of Professor Taketomo Mitsui's 70th birthday.**

## [Timetable]

| Sep. 16 (Tue.) | | Sep. 17 (Wed.) | | Sep. 18 (Thu.) | | Sep. 19 (Fri.) | |
|---|---|---|---|---|---|---|---|
| | | 9:20–10:00 | Kelly | 9:20–10:00 | Kouya | 9:20–10:00 | Forest |
| | | 10:00–10:40 | Chen | 10:00–10:40 | Hu | 10:00–10:40 | Komori |
| | | (10:40–11:00) | | 10:40–11:20 | Feng | (10:40–11:00) | |
| | | 11:00–12:00 | **Wanner** | | (lunch) | 11:00–11:40 | Itoh |
| | | | (lunch) | | (lunch) | 11:40–12:20 | Ohno |
| 13:50–14:00 | (opening) | | (lunch) | 13:15 | (social)taxi | | (lunch) |
| 14:00–15:00 | **Butcher** | 14:00–15:00 | **Hairer** | 13:40 | (social)site | | (lunch) |
| (15:00–15:20) | (coffee) | (15:00–15:20) | (coffee) | 14:00–15:00 | (social) | 14:00–14:40 | Ishikawa |
| 15:20–16:00 | Duran | 15:20–16:00 | Zanna | | | 14:40–15:20 | Kato |
| 16:00–16:40 | Miyatake | 16:00–16:40 | Owren | | | 15:20–16:00 | Furihata |
| (16:40–17:00) | | (16:40–17:00) | | | | | (closing) |
| 17:00–17:40 | Celledoni | 17:00–18:00 | **Mitsui** | | | | |
| 17:40–18:20 | Zhang | 19:00–21:30 | (dinner) | | | | |

⋆ Conference site will open from 13:00 on Sep. 16, and from 9:00 for Sep. 17–19.
⋆ Sep. 20 is dedicated to free discussions starting from 10:00.
⋆ For speakers: the presentation time includes the time for discussion and changing PCs. The projector supports VGA connection.

## Sep. 16 (Tue.)

(13:50–14:00) (opening)

14:00–15:00 **J. Butcher**
*Cohesive structure-preserving general linear methods*

15:20–16:00 V. A. Dougalis, A. Duran and D. Mitsotakis
*On the numerical solution of the Benjamin equation*

16:00–16:40 Y. Miyatake
*A parallel energy-preserving method for Hamiltonian systems*

17:00–17:40 E. Celledoni
*Structure preseving methods for port-Hamiltonian systems*

17:40–18:20 C. Chen, J. Hong, L. Ji and L. Zhang
*Stochastic multi-symplectic methods for stochastic Maxwell equations with additive noise*

## Sep. 17 (Wed.)

9:20–10:00 C. Kelly
*Polynomial difference equations under stochastic perturbation*

10:00–10:40 C. Chen and J. Hong
*Mean-square convergence order of a stochastic symplectic semi-discrete scheme*

11:00–12:00 **G. Wanner**
*Nonstiff, stiff and geometric integration*

14:00–15:00 **E. Hairer**
*Long-time numerical energy preservation for oscillatory differential equations*

15:20–16:00 A. Zanna
*On some problems in quantum control*

16:00–16:40 B. Owren
*A new look at geometric integrators for nonautonomous linear systems*

17:00–18:00 **T. Mitsui**
*Study of numerical analysis in Japan – A private view –*

## Sep. 18 (Thu.)

9:20–10:00 T. Kouya
*BIRK—Implementation of high-order implicit Runge-Kutta methods and their application to ill-conditioned problems*

10:00–10:40 G.-D. Hu
*A modified version of explicit Runge-Kutta methods for preserving multiple first integrals*

10:40–11:20 B. Feng
*Self-adaptive moving mesh methods for a class of nonlinear wave equations with hodograph transformation*

## Sep. 19 (Fri.)

9:20–10:00 E. Forest
*Symplectic integration in accelerator physics*

10:00–10:40 Y. Komori
*High order explicit exponential Runge-Kutta methods for the weak approximation of solutions of stochastic differential equations*

11:00–11:40 T. Itoh
*Discrete Schwarzian derivative of ordinary difference equation*

11:40–12:20 H. Ohno
*On explicit Runge-Kutta methods*

14:00–14:40 H. Ishikawa
*Quantum mechanics and numerical analysis*

14:40–15:20 H. Kato, H. Kato and T. Ishii
*Weak-form discretization scheme for recursive transfer method*

15:20–16:00 D. Furihata
*A predictor corrector iteration method based on the discrete variational derivative method*

⋆ The talk by Y. He has been canceled.