



RIKEN International Symposium on Data Assimilation 2017

The 7th Annual Japanese Data Assimilation Workshop

27 February - 2 March, 2017
Conference Location: AICS, Kobe, Japan


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WELCOME TO RISDA2017 / 7TH DAWS



Data assimilation (DA) is a cross-disciplinary science to synergize computer simulations and real-world data, based on statistical mathematics and dynamical systems theory. DA has long been playing a crucial role in numerical weather prediction (NWP), and recently, DA started to be applied more widely to numerical simulations beyond geophysical applications, such as planetary science and biological science. Contemporary fundamental challenges include better treatment of nonlinear and multi-scale system evolution, complex observation operators, and variables with non-Gaussian properties. Developing efficient computational algorithms has also been a major issue.

Since September 2016, RIKEN Advanced Institute for Computational Science (AICS) has launched a project titled "Data assimilation as an innovation hub to connect mathematical science, experimental and observational science, and computational science." This symposium follows the success of the 2nd International Symposium that was held as [the 4th International Symposium on Data Assimilation \(ISDA2015\)](#) in February 2015 at RIKEN AICS, Kobe, and [6th Japanese Data Assimilation Workshop](#) held in February 2016 at Japan Agency for Marine-Earth Science and Technology, Yokohama, Japan. The symposium will focus on the cross-cutting issues shared in broad applications of data assimilation from geoscience to neuroscience and bioscience. In particular, the symposium will enhance discussions among researchers with various background on, for example, non-Gaussian and nonlinear data assimilation problems, Big Data, high-performance computation (HPC), and advanced intelligence (AI)-related issues, multi-scale and multi-component treatments, and mathematical problems.

[What's new]

Feb. 20, 2017



- You can order lunch boxes for **Day 2-4** with a lunch order sheet that you will receive at the registration desk on Day 1.
- We accept cash only.

Feb. 10, 2017

– Registration closed.

Jan. 27, 2017

– The 3rd RIKEN International Symposium on Data Assimilation (RISDA2017) webpage was redesigned.

– Registration opened.

• SCHEDULES

Mon. February 27	Tue. February 28	Wed. March 1	Thu. March 2
9:00– Registration	9:00– Registration	9:00– Registration	8:30– Registration
9:30–10:45 [1] Opening / Keynote 1 (Chair: T. Miyoshi)	9:30–10:50 [6] Multi-scale & multi-component treatments 1 (Chairs: G. Ueno and S. Nakano)	9:30–10:30 [11] Applications in various physical and biological systems 1 (Chair: H. Abarbanel)	9:00–10:30 [16] Observational issues 1 (Chair: T. Kawabata)
10:45–11:05 Break	10:50–11:10 Break	10:30–10:50 Break	10:30–10:50 Break
11:05–11:50 [2] Keynote 2 (Chair: T. Miyoshi) 11:50–12:00 Group photo	11:10–12:20 [7] Multi-scale & multi-component treatments 2 (Chairs: G. Ueno and S. Nakano)	10:50–12:10 [12] Applications in various physical and biological systems 2 (Chair: H. Abarbanel)	10:50–12:20 [17] Observational issues 2 (Chair: T. Kawabata)
12:00–13:20 Lunch	12:20–13:10 Lunch 13:10–13:40 K computer tour (optional)	12:10–13:10 Lunch	12:20–13:20 Lunch
13:20–14:10 [3] Mathematical aspect 1 (Chair: R. Potthast)	13:40–14:30 [8] Mathematical aspect 2 (Chair: R. Potthast)	13:10–14:00 [13] Ideas for new applications 1 (Chairs: N. Nichols and J. Waller)	13:20–14:10 [18] Parameter optimization (Chair: J. Ruiz)
14:10–14:30 Break	14:30–14:50 Break	14:00–14:20 Break	14:10–14:30 Break
14:30–15:20 [4] Model-related issues 1 (Chair: N. Komori)	14:50–15:40 [9] Mathematical aspect 3 (Chair: R. Potthast)	14:20–15:10 [14] Ideas for new applications 2 (Chairs: N. Nichols and J. Waller)	14:30–15:20 [19] Mathematical aspect 4 (Chair: R. Potthast)
15:20–16:20 [p1] Poster Session 1	15:40–16:40 [p2] Poster Session 2	15:10–15:30 Break	15:20–15:30 [20] Closing (Chair: T. Miyoshi)
16:20–17:20 [5] Model-related issues 2 (Chair: N. Komori)	16:40–17:50 [10] High performance computing & Big data (Chairs: Y. Ishikawa and S. Greybush)	15:30–16:40 [15] Non-Gaussianity & nonlinearity (Chair: S. Penny)	== End of symposium ==
–	–	18:30–20:30 Banquet	

• INVITED SPEAKERS

Keynote / Chair: Takemasa Miyoshi (RIKEN)

Eugenia Kalnay (University of Maryland)

Henry Abarbanel (University of California, San Diego)

Applications in various physical and biological systems / Chair: Henry Abarbanel (University of California, San Diego)

Maik Kschischo (University of Applied Sciences Koblenz)

C. Daniel Meliza (University of Virginia)

Alain Nogaret (University of Bath)

Ulrich Parlitz (Max Planck Institute for Dynamics and Self-Organization, Göttingen)

High performance computing & Big data / Chairs: Yutaka Ishikawa (RIKEN) and Steven Greybush (Pennsylvania State University)

Tom Peterka (Argonne National Laboratory / University of Chicago / University of Illinois at Chicago / Northwestern University)

Ideas for new applications / Chairs: Nancy Nichols (University of Reading) and Joanne Waller (University of Reading)

Alexandre Fournier (IPG Paris)

Marko Scholze (Lund University)

Mathematical aspect / Chair: Roland Potthast (DWD / University of Reading)

Walter Acevedo (University of Potsdam)

Jonathan Poterjoy (NCAR)

Leonhard Scheck (Ludwig-Maximilians-University of Munich)

Shu-Chih Yang (Taiwanese National Central University / RIKEN)

Model-related issues / Chair: Nobumasa Komori (JAMSTEC)

Norihisa Usui (Meteorological Research Institute)

Multi-scale & multi-component treatments / Chairs: Genta Ueno (Institute of Statistical Mathematics) and Shin'ya Nakano (Institute of Statistical Mathematics)

James Carton (University of Maryland)

Alicia Karspeck (NCAR)

Malaquias Peña (NCEP)

Non-Gaussianity & nonlinearity / Chair: Stephen Penny (University of Maryland / NCEP / RIKEN)

Chris Snyder (NCAR)

Observational issues / Chair: Takuya Kawabata (Meteorological Research Institute)

Shu-Hua Chen (University of California, Davis)

Martin Weissmann (Ludwig-Maximilians-University of Munich)

Parameter optimization / Chair: Juan Ruiz (University of Buenos Aires / RIKEN)

Derek Posselt (JPL)

Organized by

[RIKEN Advanced Institute for Computational Science \(RIKEN AICS\)](#)

Co-Organized by

[RIKEN interdisciplinary Theoretical Science Research Group \(iTHES\)](#)

[Japanese Data Assimilation Research Consortium](#)

Organizing Committees

[See Organizers Page](#)



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■■ Contact ■■



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[Team Webpage](#)

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→ [RIKEN laboratory page](#)

→ [AICS laboratory page](#)

