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Accelerated Data and Computing Workshop

Organized by Tokyo Institute of Technology, Hosted by the University of Tokyo
Kashiwa, Japan
January 25-27, 2017

Accelerated Data and Computing Workshop

Jan 25-27, 2016

Accelerated Data Analytics and Computing (ADAC) institute was initiated in 2016 between the leading institutions in accelerated computing to support collaborative projects and programs that bridge the respective HPC missions of the U.S. Department of Energy's (DOE) Oak Ridge National Laboratory (ORNL), the Tokyo Institute of Technology (Tokyo Tech), and the Swiss Federal Institute of Technology, Zurich (ETH Zurich). All three organizations manage HPC centers that run large, GPU-accelerated supercomputers and provide key HPC capabilities to academia, government, and industry to solve many of the world's most complex and pressing scientific problems. An MOU has been signed in 2016 among all the three inaugural institutions.

ADAC will focus on multiple objectives spanning performance, hardware, and applications, including:

- Adapting important scientific and engineering applications to hybrid accelerated architectures.
- Partnering with HPC vendors to evaluate architecture diversity.
- Enabling collaborative scientific efforts in hybrid accelerated data and compute.
- Ensuring sustainability and portability of critical applications.
- Sharing best practices regarding the operation, management, and procurement of HPC resources.

The institute lays the groundwork for more focused collaboration centered around three technical areas—applications, performance, and resource management. Designated representatives from each member institution serve as the leads in these areas. A bi-annual workshop is hosted at respective institutions or their close partners within the region.

The 2017 Winter Workshop will be held in Tokyo, Japan during Jan 25-27, co-hosted by the Global Scientific Information and Computing Center (GSIC), Tokyo Institute of Technology, and the Information Technology Center, the University of Tokyo, a close partnership supercomputing center with GSIC. The workshop will consist of the first open day (25th), followed by a morning of open sessions on the second day (26th). The remaining portions of the workshop on the second day and the third say (27th) will be closed to ADAC Institute members and partner institution invited guests.

Location; Information Technology Center, the University of Tokyo Kashiwa Campus
Chiba Japan (near Tsukuba Express Kashiwanoha Station)

Dates Overview

Jan 25: Open 6 Vendor Day
Jan 26: Open Morning Session.
Jan 26: Afternoon Sessions closed to ADAC institutes working groups and invited guess
Jan 27: Sessions closed to ADAC institutes working groups and invited guess

–Detailed AGENDA–

Wednesday, January 25, 9:30am – 17:00pm (Open)

TIME	DESCRIPTION	PRESENTER
9:30 AM	**Welcome & Opening**	Kengo Nakajima, the University of Tokyo Satoshi Matsuoka, Tokyo Tech
9:40 AM	***University of Tsukuba's Accelerated Computing***	*Taisuke Boku, University of Tsukuba*
10:20 AM	**Accelerated Computing Activities at University of Tokyo Supercomputer Center**	Kengo Nakajima, the University of Tokyo
11:00 AM	**Break**	
11:15 AM	**ADAC Activities Update**	
12:00 PM	**Lunch**	
13:00 PM	**Tokyo Tech Global Scientific Information and Computing Center and Advanced Industrial Science and Technology- Artificial Intelligence Research Center Update on Accelerated Infrastructures (TSUBAME3 and Artificial Intelligence Bridging Cloud Infrastructure)**	Satoshi Matsuoka, Tokyo Tech
13:30 PM	**Accelerated Applications on TSUBAME**	Rio Yokota, Takashi Shimokawabe, Toshio Watanabe, Tokyo Tech.
14:00 PM	**Big Data / AI activities for TSUBAME3 – large scale deep learning**	Ikuro Sato, DENSO IT Lab
14:30 PM	**Fujitsu Processor History and Future**	Takumi Maruyama, Fujitsu
15:00 PM	**NEC Service Acceleration Platform**	Shinya Oda, NEC
15:30 PM	**Break**	
16:00 PM	**AI: Unleashing the Next Wave**	Masashi Horikoshi, Intel
16:30 PM	**NVIDIA GPU Deep Learning use cases in Japan**	Shigeto Iwata, NVIDIA
17:00 PM	**Adjourn Day 1**	
17:10 PM	**Oakleaf-FX, Oakforest-PACS tour**	
18:00 PM	**Banquet**	

Thursday, January 26, 9:30am – 17:00pm (Closed Session from 11:30)

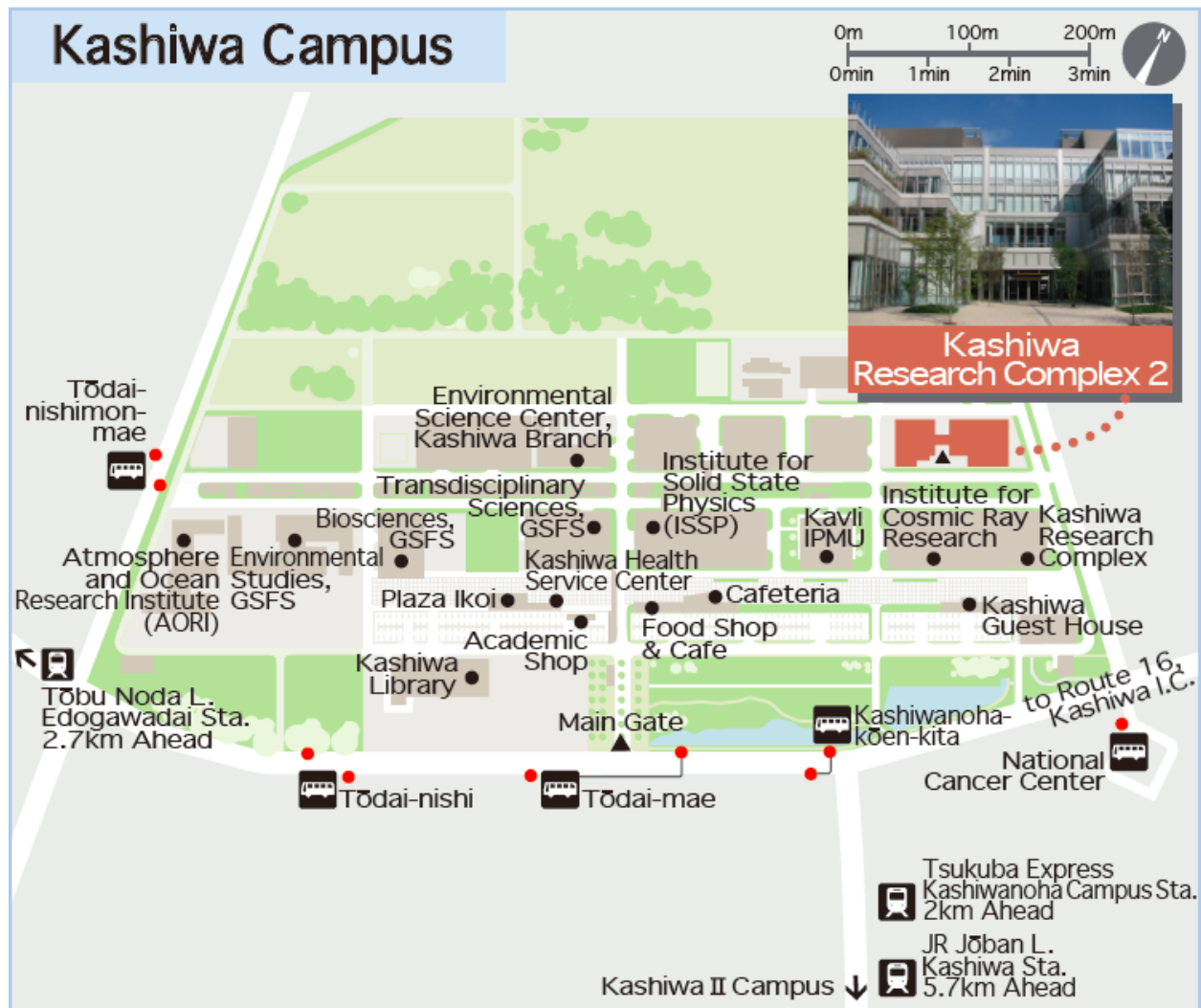| TIME	DESCRIPTION	PRESENTER
9:30 AM	**Day 2 Welcome and Logistics**	Satoshi Matsuoka, Tokyo Tech
9:35 AM	**Plenary Session: Update on 2016 Activities** • Applications • Performance Tools • Operations/Resource Management	
10:15 AM	**Plenary Session: Plans on Accelerated Exascale Linear Algebra Libraries**	Jack Dongarra, University of Tennessee/ORNL
11:15 AM	**Break**	
11:30 AM	**Plenary Session: Working Group Goals and Expectations**	Satoshi Matsuoka, Tokyo Tech Jeff Nichols, ORNL Thomas Schulthess, CSCS
12:00 PM	**Lunch**	
13:30 PM	**Breakout Groups #1** • Applications (Talk on NTChem by Michio Katouda) • Performance Tools • Resource Management • Governance	
15:00 PM	**Break**	
15:15 PM	**Breakout Groups #2** • Applications • Performance Tools • Resource Management • Governance	
16:45	**Plenary Session: End of Day 2 Report Out from Working Groups**	
17:00 PM	**Adjourn Day 2**	
18:30 PM	**Banquet**	

Friday, January 27, 9:30am – 12:00pm (Closed Session)

TIME	DESCRIPTION	PRESENTER
9:30 AM	**Day 3 Welcome and Logistics**	Satoshi Matsuoka, Tokyo Tech
9:35 AM	**Breakout Groups #3** • Applications (Stencils/particles by Takayuki Aoki) • Performance Tools • Resource Management • Governance	
11:00 AM	**Final Report Out from Working Groups**	
11:45 AM	**Wrap Up and Next Steps**	Satoshi Matsuoka, Tokyo Tech Jeff Nichols, ORNL Thomas Schulthess, CSCS
12:00 PM	**Adjourn Day 3**	

Site of the workshop

Kashiwa Research Complex 2, Kashiwa Campus, The University of Tokyo
5-1-5 Kashiwanoha, Kashiwa-shi, Chiba 277-8589, Japan

How to reach Kashiwa-campus from "Kashiwanoha-campus (柏の葉キャンパス) Station"

[Tobu Bus]
Take Nishi-kashiwa 03 for Nagareyama-otakanomori Station, and get off at Todai-mae stop.
Take Nishi-kashiwa 04 for Edogawadai Station, and get off at Todai-mae stop.
[By foot]
About 25 minutes' walk.

[NOTE] There are two U-Tokyo campuses around the station. The workshop will be held at "Kashiwa Campus", not at "Kashiwa II Campus".

How to reach "Kashiwanoha-campus (柏の葉キャンパス) Station" from airport

If you stay at "Mitsui Garden Hotel" or "Sun Oak Hotel", Kashiwano-Ha Campus Station of Tsukuba Express Line is the closest access point. But it is rather difficult to take the train if you are not familiar with transportation in Tokyo. The Airport Limousine Bus arrives at the Kashiwano-Ha Campus Station.

[**From Narita**]
Take Keisei Bus Matsudo-Kashiwa Line (only 3 buses per day).
Approximately 65 - 75 mins by limousine bus to "Kashiwanoha Campus Station West Exit" (This is not the final destination of the bus).
You can buy the ticket at counters of NRT airport of Keisei Bus.

[**From Haneda**]
Take a bus to "Kawshiwa Station West Exit" at Stop "6" of HND International Terminal.
Approximately 70 - 100 mins by limousine bus to Kashiwanoha Campus Station West Exit (This is not the final destination of the bus).
The bus leaves at 08:25, 10:45, 11:50, 14:15, 15:15, 16:15, 17:15, 18:15, 19:15, 19:55, 20:30, 21:15, 22:15 at HND International Terminal.

Workshop Registration

Registration badge and workshop material can be collected onsite at the registration desk according to the following timetable:

Wednesday, January 25 at 9:00 – 17:00
Thusday, January 26 at 09:00 – 17:00

Internet & WiFi Facility
Eduroam is available throughour the entire campus.

Web Page of the ADAC Workshop

https://iadac.github.io/event/adac3/

Local Organization

Rio Yokota
Tokyo Institute of Technology
2-12-1 i7-2 Ookayama
Meguro-ku, Tokyo 152-8550, Japan

Phone: +81 90 2568 3959
E-mail: rioyokota@gsic.titech.ac.jp

Program Chair
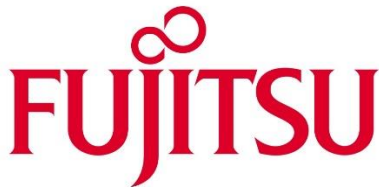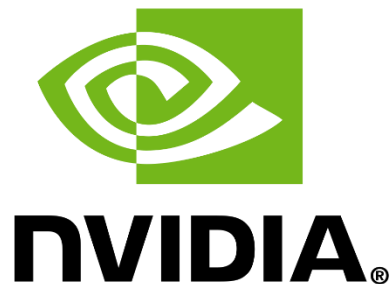
Becky Verastegui
Oak Ridge National Laboratory
P.O. Box 2008
Oak Ridge, Tennessee 37831-6163
USA

Phone: +1 865-805-0562
E-mail: verasteguirj@ornl.gov

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