An Overview of Big Data Research Programs in Japan

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Challenge
Super Aged Society

Japan is in the 1st place, and is still aging

% of population aged over 65

- Year 2015
- Year 2030

Japan
US
Challenge
Natural Disaster

- Japan is a high risk country
Challenge Cyber Attacks

Tokyo Olympics

2016

2017

2018

2019

2020
CREST/PRESTOP: strategic research programs of JST

**Research Area 1: Big Data Application Technologies**
- 9 CREST projects
- More application specific
- Collaboration of CS/IS/Math and target applications
- Own data is required

**Research Area 2: Big Data Core Technologies**
- 11 CREST and 17 PRESTOP projects
- Applicable to multiple application domains
- Integration of various sorts of data
Big Data Application Technologies

Weather Prediction with BD assimilation

Disaster Reduction Management
Big Data Application Technologies

Pandemics

Statistical Computational Cosmology

Document Analysis
Big Data Core Technologies

Hayato Yamana

Takeaki Uno

Satoshi Matsuoka

NLP

Security

Analytics & Algorithms

Learning & Mining

Infrastructure
ERATO: another strategic research program of JST

Kawarabayashi Large Graph Project 2012-2018

Kawahara Project 2015-2021
Advanced Integrated Intelligence Platform Project

- AI, Big Data, IoT, and Cyber Security
- A new research center @ RIKEN from last week

- New research area(s) @ JST (TBA)
JST-NSF Big Data Joint Workshop/Symposium

- Closed Workshop on May 11 @ Akihabara
- Open Symposium on May 12 @ UTokyo
Thank you

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CREST: http://www.jst.go.jp/kisoken/crest/en/research_areas/
PRESTO: http://www.jst.go.jp/kisoken/preseto/en/research_areas/
Medical & Health Case DB

- National Clinical Database (NCD)
  - 1.2M surgical operations/year

- National Data Base (NDB)
  - About 1B receipts/year of National Health Insurance