Opening Remark

Hiroaki Kondo (AIST)

1. Objective and goal of the workshop
2. Why deposition?
3. Outline of schedule

1. Objective and goal of the workshop

Motivation 1: Both of scientific and operational models have much uncertainty in deposition process.

Motivation 2: Lack of experience to utilize operational models for emergency response in Japan.

Lead organizer of DAY-1: Hiroaki Kondo (AIST)

DAY-2: Ryoji Ohba (IIS, the University of Tokyo)

Bridging the gaps

Academic model

Modeling Research

Senior Researchers

Researchers

Operational model

Observational Research

Young Researchers

Society

Goal:

DAY-1:

- To reduce uncertainty in the simulation model of advection, diffusion, and deposition, inter alia, deposition process.
- To recommend the parameters related to deposition for operational models from SOA knowledge.
- To build up strategy for further improvement of above two points.

DAY-2:

- To improve monitoring systems and modeling procedure for source term estimation in case of emergency release.
- To build up consensus for “Risk communications” for effective decision making.

2. Why deposition?

So far some symposia and workshops have been conducted related to similar topics.

e.g.

NCAR workshop	(22–23 February 2012, NCAR)
MSJ Special session	(17 September 2012, Nagoya Univ.)
AMS Special symposium	(6 January 2013, Austin)

Model comparison

e.g. JAEA, SCJ, WMO/UNSCEAR

- Major uncertainties: STE, dispersion process, deposition process
- Dose from deposited radionuclides are main cause of long-term exposure of radiation.
- The origin of uncertainty for deposition is not always clear.

An example of deposition calculation in unit time and area :

(A Standard for Procedure of Probabilistic Safety Assessment of Nuclear Power Plants (Level 3 PSA): 2008, AESJ-SC-P010 (2008))

Wash out coefficient $\Lambda = CR^{\alpha}$ e.g. $C = 9.5\times10^{-5}$ $\alpha = 0.8$ for particle

(MACCS2, NUREG-1150)

$$\Lambda = 10^{-5} - 10^{-2}\,\mathrm{s}^{-1}$$

$$\chi_D(x,y) = \chi(x,y,0)\left\{V_d + \Lambda\sqrt{\frac{\pi}{2}}\sigma_z(x)\exp\left[\frac{h^2}{2\sigma_z^2(x)}\right]\right\}$$

Dry deposition velocity $0.1 \sim 10\,\mathrm{cms}^{-1}$ (USNRC 1983)

3. Outline of Schedule

Date	2nd March : Academic discussion
Opening remark	9:00-9:15
Invited presentations (1)	9:15-11:45
Invited presentations (2)	13:00-14:40
Poster session	14:40-16:00 (including coffee break)
Group discussion	16:00-17:00
Panel discussion	17:00-18:00

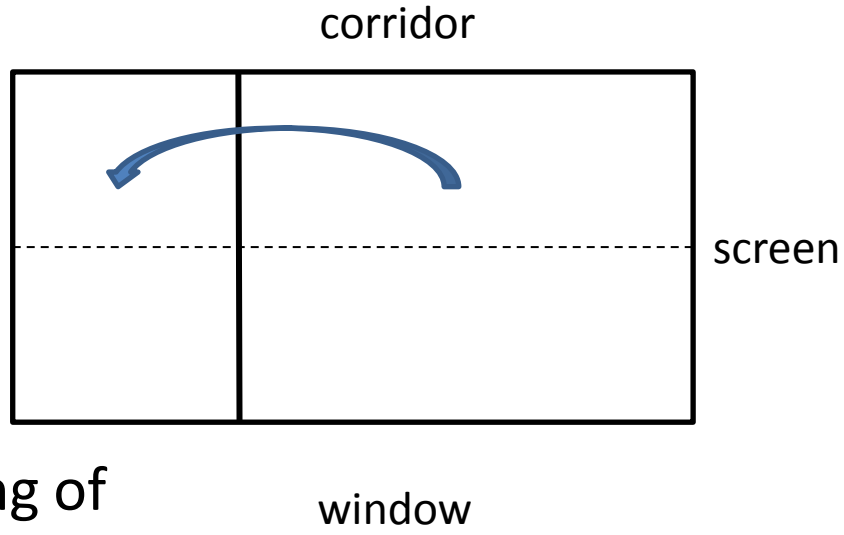
Banquet : 18:30-20:00 (All participants will be transported by the chartered bus to JR Fukushima station and Iizaka Onsen.)

Date	3rd March : Operational discussion
Invited presentations	9:00-11:15
Poster session	11:15-12:00 (Including coffee break)
Group photo	12:00-12:15
Group discussion	13:00-14:30: Group discussion #2 will be held at No.403 room at 4th floor of the building in front of the conference centre.
Coffee break	14:30-15:00
Panel discussion	15:00-16:00
Closing remarks	16:00-16:30

Donation Memorial Building, Faculty of Symbolic System Science,
Fukushima University

Poster presentations:

Please set up your poster at the specified board each day. A name card is attached at the top of the board.



Group discussion:

March 2: Two groups

March 3: Three groups

Group#2: room 403 in the building of the Faculty of Symbolic System Science

March 4: Excursion

Fukushima JR st.
west exit: 9:00

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Iizaka Onsen
（meeting point?）

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Iidate village office

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Matsukawa-ura
(lunch)

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F1NPP

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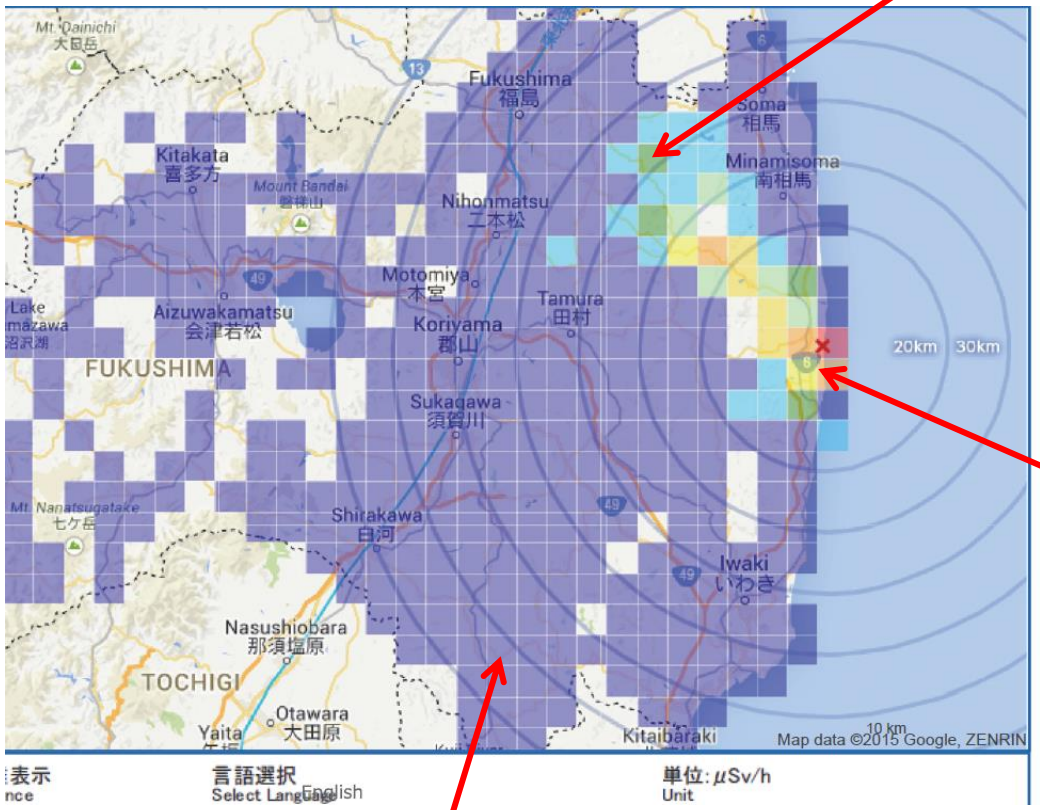
Fukushima JR St.:
16:30

Dose rate (Feb. 22)

0.5～1μSv/h (Iidate)



5μSv/h (near F1NPP)

～0.25μSv/h

by Fukushima prefecture

Major contributors:

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Tumbler doll, god of fire maid in Aizu, Fukushima (photo by Akira Watanabe)