

# 国際雪・雪崩シンポジウム

in 二セコ

日時：2015年12月9日～12日

会場：二セコ町民センター

① オープン シンポジウム (9日 17:30～)

## 雪崩発生危険度を予測する

話題提供：半井小絵 (気象予報士)

新谷暁生 (二セコ雪崩調査所)

Samuel Morin (フランス気象局)

Nander Wever (スイス雪・雪崩研究所) 他

② ワークショップ (10～11日)

❖ 積雪構造と雪崩ダイナミクス

③ 自由討論会 (12日：午前)

❖ フルスケール雪崩実験 in 二セコ

主催：名古屋大学大学院環境学研究科  
防災科学技術研究所  
共催：二セコアンヌプリ地区なだれ事故対策協議会  
(公社) 日本雪氷学会北海道支部  
後援：二セコ町、二セコ雪崩調査所  
協力：(株) 雪研スノーイーターズ

### お問い合わせ先

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(Phone: 052-789-3480, E-mail: knishi@nagoya-u.jp)

### 会場案内

二セコ町民センター (TEL: 0136-44-2221)  
北海道虻田郡二セコ町富士見95

● JR二セコ駅より  
徒歩10分

● 高速バスあり  
(札幌～二セコ)



# 国際 雪・雪崩シンポジウム in ニセコ

## プログラム

場所：ニセコ町民センター（北海道虻田郡ニセコ町富士見 95）

日時：2015 年 12 月 9 日～12 日



**12 月 9 日（水）**

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**オープンシンポジウム （17：30 開始）**

**「雪崩発生危険度を予測する」**

安全・安心のための気象情報の活用

半井小絵（気象予報士）

ニセコにおける雪崩事故防止とその考え方

新谷暁生（ニセコ雪崩調査所）

ニセコを対象とした雪崩発生予測の試み

西村浩一（名古屋大学）

Avalanche hazard forecasting in France : missions, tools and prospects

Samuel Morin（フランス気象局） 通訳あり

Swiss avalanche warning service

Nander Wever（スイス雪・雪崩研究所）通訳あり

防災科学技術研究所における雪崩予測への取り組みの紹介

山口 悟（防災科学技術研究所）

## Workshop on “MICROSTRUCTURES OF SNOW”

### 積雪構造に関するワークショップ

#### Thursday, December 10

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9:00 “Advances and prospects in physically-based snowpack modeling”

*Samuel Morin* (Météo-France - CNRS)

9:30 "Specific surface area of new snow"

*Satoru Yamaguchi* (National Research Institute for Earth Science and Disaster Prevention)

10:00 "Shape modelling of ice particles using micro-CT data for snow radiative transfer calculations"

*Hiroshi Ishimoto* (Meteorological Research Institute)

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10:30 – 10:45 Break

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10:45 "Dynamics of idealized snow stratifications: Time-lapse tomography of near-crust metamorphism"

*Henning Löwe* (WSL Institute for Snow and Avalanche Research SLF)

11:15 "Shear Strength Tests of Artificial Surface Hoar Formed in a Wind Tunnel"

*Toshihiro Ozeki* (Hokkaido University of Education)

11:45 "Mobile shear-box for snow"

*Evgeny Podolskiy* (Hokkaido University)

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12:15 – 13:30 Lunch

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13:30 "Visualization of liquid distribution in wet snow using X-ray CT and MR"

*Satoru Adachi* (National Research Institute for Earth Science and Disaster Prevention)

14:00 "Modeling of Liquid water infiltration using three-dimensional model in the snowpack"

*Hiroyuki Hirashima* (National Research Institute for Earth Science and Disaster Prevention)

**Workshop on “AVALANCHE DYNAMICS”**  
雪崩(なだれ)ダイナミクスに関するワークショップ

**Thursday, December 10**

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14:30 “Infrasound tripartite array for detection and estimation of locations of snow avalanches”

*Nobuo ARAI* (Nagoya University)

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15:00 – 15:30 Break

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15:30 “Snow avalanches from a seismological point of view (1995-2015)”

*Emma Suriñach* (Universitat de Barcelona )

16:00 “Variations in snow glide rates prior to full-depth avalanche release on shrub slopes in the temperate heavy-snow region of Japan”

*Katsuhisa Kawashima* (Niigata University)

16:30 “Snow-atmosphere interactions driving snow accumulation in steep terrain”

*Rebecca Motto* (WSL Institute for Snow and Avalanche Research SLF)

17:00 “CFD prediction of snowdrift around a building based on two transport equations of drifting snow densities”

*Tsubasa Okaze* (Tohoku University)

**Friday, December 11**

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9:00 “Investigation of the 2015 Langtang ice-rock avalanche induced by the 2015 Gorkha Earthquake, Nepal Himalaya”

*Koji Fujita* (Nagoya University)

9:30 "Assessing wet snow avalanche risks from detailed snowpack simulations"

*Nander Wever* (WSL Institute for Snow and Avalanche Research SLF)

10:00 “Forcing snow avalanche dynamics calculations with modelled snowcover data: applications in Switzerland and Chile”

*Cesar Vera Valoro* (WSL Institute for Snow and Avalanche Research SLF)

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10:30 – 10:45 Break

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10:45 “Simulation of snow avalanche based on snowpacked model”

*Kenichi Oda* (Nihon University)

11:15 “Simple particle model for granular flow with head-tail structure”

*Hirofumi Niiya* (Nagoya University)

11:45 “Probabilistic hazard map with a Polynomial Chaos Quadrature method  
-Application for a northern slope of Mount Fuji-“

*Kae Tsunematsu* (Mount Fuji Research Institute), *Kouich Nishimura* (Nagoya University), *Keisuke Mori* (CTC)

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12:15 – 13:30 Lunch 🍴

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13:30 “Mathematical Approach for Pattern Dynamics on the Surface of Granular Bed”

*Hiraku Nishimori* (Hiroshima University)

14:00 “Splash Process due to Grain Impact on Granular Bed”

*Takahiro Tanabe* (Hiroshima University)

14:30 “Swimming in sand: velocity, efficiency, controlling, and interaction”

*Takashi Shimada* (University of Tokyo)

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15:00 – 15:30 Break

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15:30 “Grain-size segregation by the shear”

*Ryo Itoh, Takahiro Hatano* (Earthquake Research Institute, University of Tokyo)

16:00 “Avalanche contribution to shear modulus of granular materials near jamming”

*Michio Otsuki* (Shimane University)

16:30 “Granular Avalanche driven by vertical vibration”

*Daisuke Tsuji, Hiroaki Katsuragi* (Nagoya University)

17:00 “Pressure in vibrated granular bed”

*Hiroaki Katsuragi* (Nagoya University)

## **Saturday, December 12**

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9:00 “Taconnaz and Lautaret full-scale avalanche test-site and 3935 other French  
avalanche paths”

*Florence Naaim* (IRSTEA)

9:30 "On the internal structure of snow avalanches from data collected at the Vallée de  
la Sionne test site"

*Betty Sovila* (WSL Institute for Snow and Avalanche Research SLF)

10:00 "Dynamical lessons from the Vallée de la Sionne test site"

*Jim McElwaine* (Durham University)

10:30 "Future directions in avalanche dynamics research: lessons learnt from the Ryggfonn experiments, knowledge gaps and new opportunities"

*Dieter Issler* (Norwegian Geotechnical Institute)

11:00 "Full-scale snow avalanche experiment in Niseko"

*Kouichi Nishimura* (Nagoya University)

## **Discussion**