

# The 9th Workshop on Nilpotent Orbits and Representation Theory

**Dates:** 19 (Friday) — 23 (Tuesday) February 2010

**Location:** Department of Mathematics, Hokkaido University  
Science building # 3, Room 309

**Organizers:** Kyo Nishiyama, Hiroshi Yamashita

**Time Table (as of 28 January 2010):**

	Fri 19	Sat 20	Sun 21	Mon 22	Tue 23
9:00–10:00	<i>Registration (-9:25)</i>	Wolf I	Naruse	Loke	Trapa
9:30–10:30	Abe	—	—	—	—
10:30–11:30	—	Ciubotaru-Kato I	Hirai	Wolf II	Nishiyama
11:00–12:00	Huang	—	—	—	—
14:00–15:00	Matumoto	Kitchen	<i>No lecture</i>	Ciubotaru-Kato II	discussion
15:30–16:30	Arakawa	—	<i>No lecture</i>	—	discussion
15:30–17:00	—	Oda I	<i>No lecture</i>	Oda II	—
16:45–17:45	Kassel	—	<i>No lecture</i>	—	—
	—	<i>Workshop dinner</i>	—	—	—

## Program (as of 28 January 2010)

### February 19 (Fri)

- 9:00 – 9:25    *Registration*
- 9:30 – 10:30    Noriyuki Abe (University of Tokyo)  
                  “On extensions between principal series of complex semisimple Lie groups”
- 11:00 – 12:00    Jing-Song Huang (Hong Kong University of Science and Technology)  
                  “Jacquet modules and Dirac cohomology”
- 14:00 – 15:00    Hisayosi Matumoto (University of Tokyo)  
                  “On a finite  $W$ -algebra module structure on the space of continuous Whittaker vectors for an irreducible Harish-Chandra module”
- 15:30 – 16:30    Tomoyuki Arakawa (Nara Women’s University)  
                  “Nilpotent orbits and Kac-Wakimoto admissible representations of Kac-Moody algebras”
- 16:45 – 17:45    Fanny Kassel (Orsay)  
                  “Deformation of compact quotients of homogeneous spaces”

### February 20 (Sat)

- 9:00 – 10:00    Joseph A. Wolf (University of California, Berkeley)  
                  “Geometry of the discrete series”
- 10:30 – 11:30    Dan Ciubotaru (University of Utah) and Syu Kato (Kyoto University)  
                  “On formal degrees of discrete series of affine Hecke algebras of classical types, I”
- 14:00 – 15:00    Sarah Kitchen (University of Utah)  
                  “Localization of cohomologically induced modules to partial flag varieties”
- 15:30 – 17:00    Hiroshi Oda (Takushoku University)  
                  “Poisson transforms and graded Hecke algebras, I”
- Banquet (workshop dinner)*

### February 21 (Sun)

- 9:00 – 10:00    Hiroshi Naruse (Okayama University)  
                  “A generalization of hook formula for arbitrary Coxeter group ”
- 10:30 – 11:30    Takeshi Hirai (Kyoto University, Professor emeritus)  
                  “Projective representations and spin characters of finite and infinite complex reflection groups”

## February 22 (Mon)

- 9:00 – 10:00 Hung Yean Loke (National University of Singapore)  
“Compact dual pair correspondences for non-linear covers  
of orthogonal groups”
- 10:30 – 11:30 Joseph A. Wolf (University of California, Berkeley)  
“The Borel – de Siebenthal discrete series”
- 14:00 – 15:00 Dan Ciubotaru (University of Utah) and Syu Kato (Kyoto University)  
“On formal degrees of discrete series of affine Hecke algebras  
of classical types, II”
- 15:30 – 17:00 Hiroshi Oda (Takushoku University)  
“Poisson transforms and graded Hecke algebras, II”

## February 23 (Tue)

- 9:00 – 10:00 Peter E. Trapa (University of Utah)  
“Enhanced Kazhdan-Lusztig cells”
- 10:30 – 11:30 Kyo Nishiyama (Aoyama Gakuin University)  
“Orbits on the multiple flag varieties for symmetric pairs”
- 14:00 – 16:30 discussion

The latest information will be found in the workshop web-page:

[http://www.math.sci.hokudai.ac.jp/sympo/100219/index\\_en.html](http://www.math.sci.hokudai.ac.jp/sympo/100219/index_en.html)

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