

# NCMW: Representation theory of Real groups and Automorphic forms–Schedule

Venue: Harish-Chandra Research Institute, Chhatnag Road, Jhansi, Prayagraj -211019

Date: October 02, 2023 - October 07, 2023

Title of the workshop: Representation theory of Real groups and Automorphic forms

Topic: Representation theory, Harmonic analysis and Number theory

## Tentative Program

Day/Time	02.10.2023	03.10.2023	04.10.2023	05.10.2023	06.10.2023	07.10.2023
09:30-10:30	DP	MSR	MSR	MSR	DM	RR
10:35-11:35	MSR	EKN	EKN	EKN	AN	AN
11:35-12:00	Tea	Tea	Tea	Tea	Tea	Tea
12:00-13:00	EKN	DM	RP	RP	RR	SV
13:00-14:30	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
14:30-15:30	DM	RP	DM	SV	SV	RR
15:30-16:00	Tea	Tea	Tea	Tea	Tea	Tea
16:00-17:00	MSR	EKN	T(AM+MSR)	AN	T(AR/AM)	DM
					T(+ RP))	
17:05-18:05	T(VV+MSR)	T(PP+EKN)	T(JR+DM)	T(AR+EKN)	T(AM+DM)	DP
18:05-18:20	Tea	Tea	Tea	Tea	Tea	Tea

## Full forms for the abbreviations of Speakers and Tutors:

### Speakers with titles of the talks:

- **MSR**: MS Raghunathan (Professor, CBS, Mumbai), *Compact Lie groups, their representations, and Weyl Character formula*
- **EKN**: E.K. Narayanan (Professor, IISc, Bangalore), *Classification of all irreducible representations of  $SL_2(\mathbb{R})$ , and Plancherel theorem for  $SL_2(\mathbb{R})$*
- **DM**: Dragan Milicic (Professor, Utah), *Introduction of  $(\mathfrak{g}, K)$  modules, The Casselman- Wallach theorem on equivalence of categories, Asymptotic of matrix coefficients, and Casselman-Milicic theorem*
- **RP**: R. Parthasarathy (Professor, Retd. from TIFR, Mumbai), *Admissibility theorems, Character theory, Introduction to Harish-Chandra's works on discrete series*
- **AN**: Arvind Nair (Professor, TIFR, Mumbai), *Cohomological induction, Constructing and classifying all unitary representations of real reductive groups with cohomology*
- **RR**: Ravi Raghunathan (Professor, IIT Bombay), *Notion of Automorphic representations due to Harish-Chandra, finiteness theorems, notion of cusp forms*
- **SV**: Sandeep Varma (Professor, TIFR, Mumbai), *Introduction to the Spectral decomposition of  $L^2(G/\Gamma)$  due to Langlands*
- **DP**: Dipendra Prasad (Professor, IIT Bombay), *Introduction to the workshop and Summary, complements and prospects for the future.*

### Tutors (tentative)

- **VV**: Vaibhav Vaish (Assistant Professor, IISER Mohali)
- **JR**: Jishnu ray (Fellow E, HRI, Prayagraj)
- **PP**: Pampa Paul (Assistant Professor, Presidency University)
- **AR**: Ankit Rai (Post-doctoral fellow, IIT Bombay)
- **AM**: Arghya Mondal (Post-doctoral fellow, CMI)
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### Workshop supported by

- National Centre for Mathematics
- Harish-Chandra Research Institute, Prayagraj