

**David Vogan and Timothy Ngotiaoco**

**November 4, 2019**, *Principal series continued:  $Sp(4, \mathbb{R})$*

<https://zoom.us/s/739477128>.

Suppose  $B(\mathbb{R}) = H(\mathbb{R})N(\mathbb{R}) \subset G(\mathbb{R})$  is a Borel subgroup of a reductive group. Timothy last week talked about “normalizing” induction from (characters of)  $H(\mathbb{R})$  to  $G(\mathbb{R})$ , in part to make it nearly true that

$$\mathrm{Ind}_{B(\mathbb{R})}^{G(\mathbb{R})}(\gamma) = \mathrm{Ind}_B^G(w \cdot \gamma)$$

for any character  $\gamma$  of  $H(\mathbb{R})$  and any

$$w \in W(\mathbb{R}) = N_{G(\mathbb{R})}(H(\mathbb{R}))/H(\mathbb{R}).$$

Timothy will finish up that discussion today.

Then I’ll talk more about how to enter such representations into atlas, and what atlas can do with them.