

Eine Woche, ein Beispiel
11.26 calculation of double point

Final goal: Fill in the tables in the next page.
(for presentation, remove the $i!$ column)

Ref:

[Willians]: Langlands correspondence and Bezrukavnikov's equivalence

calculations from Lukas Bonfert's note (don't forward this to anyone else).

$$X = \mathbb{C} \cup_{\{0\}} \mathbb{C} = \{(z_1, z_2) \in \mathbb{C}^2 \mid z_1 z_2 = 0\}, \quad Z = \{0\}, \quad U = \mathbb{C}^x \cup \mathbb{C}^x$$

$$i_* \mathbb{Q}_Z$$

(0, 1, 1, 1)

	n	-2	-1	0	1
\mathbb{C}	j^*	0	0	0	0
$\{\infty\}$	i^*	0	0	\mathbb{Q}	0
	$i'!$	0	0	\mathbb{Q}	0
	$R^n \Gamma$	0	0	\mathbb{Q}	0

$$\mathbb{Q}_X[1]$$

(-1, -1, -1, -1)

	n	-2	-1	0	1
\mathbb{C}	j^*	0	\mathbb{Q}	0	0
$\{\infty\}$	i^*	0	\mathbb{Q}	0	0
	$i'!$	0	0	\mathbb{Q}	\mathbb{Q}^2
	$R^n \Gamma$	0	\mathbb{Q}	0	0

$$Rj_* \mathbb{Q}_U[1]$$

(-1, 0, 0, 0)

	n	-2	-1	0	1
\mathbb{C}	j^*	0	\mathbb{Q}	0	0
$\{\infty\}$	i^*	0	\mathbb{Q}^2	\mathbb{Q}^2	0
	$i'!$	0	0	0	0
	$R^n \Gamma$	0	\mathbb{Q}^2	\mathbb{Q}^2	0
	Γ	0	\mathbb{Q}^2	\mathbb{Q}	0

$$j'_! \mathbb{Q}_U[1]$$

(-1, 0, 0, 0)

	n	-2	-1	0	1
\mathbb{C}	j^*	0	\mathbb{Q}	0	0
$\{\infty\}$	i^*	0	0	0	0
	$i'!$	0	0	\mathbb{Q}^2	\mathbb{Q}^2
	$R^n \Gamma$	0	0	0	0