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).

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

$i_* \underline{\mathbb{Q}}_Z$
$(0,1,1,1)$

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

$\underline{\mathbb{Q}}_X[1]$
$(-1,-1,-1,-1)$

	n	-2	-1	0	1
U	j^*	0	$\underline{\mathbb{Q}}$	0	0
$\{0\}$	i^*	0	$\mathbb{Q}$	0	0
	$i^!$	0	0	$\mathbb{Q}$	$\mathbb{Q}^2$
	$R^n\Gamma$	0	$\mathbb{Q}$	0	0

$Rj_* \underline{\mathbb{Q}}_U[1]$
$(-1,0,0,0)$

	n	-2	-1	0	1
U	j^*	0	$\underline{\mathbb{Q}}$	0	0
$\{0\}$	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

$j_! \underline{\mathbb{Q}}_U[1]$
$(-1,0,0,0)$

	n	-2	-1	0	1
U	j^*	0	$\underline{\mathbb{Q}}$	0	0
$\{0\}$	i^*	0	0	0	0
	$i^!$	0	0	$\mathbb{Q}^2$	$\mathbb{Q}^2$
	$R^n\Gamma$	0	0	0	0