

Start of Global Geometric Langlands:

$$\text{Ded}(\text{Bun}_G) \simeq \text{QGL}(\text{LocSys}_G^{\text{an}})$$

$$? \quad \longleftrightarrow \quad \uparrow$$

$$\quad \quad \quad \otimes$$

$$\text{Ded}(\text{Bun}_G)^{\otimes n} \longrightarrow \text{Ded}(\text{Bun}_G)$$

$$\quad \quad \quad \updownarrow$$

$$K_{\text{an}} \in \text{Ded}(\text{Bun}_G^{X(n)})$$

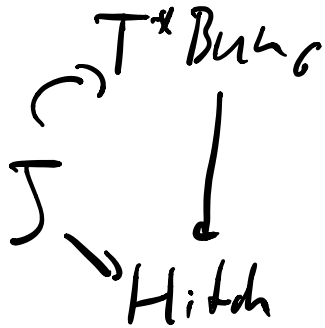
$$\text{LocSys}_G^{X(n)}$$

$$\quad \uparrow \Delta$$

$$\text{LocSys}_G$$

$$\begin{array}{ccc} K_n & \longleftrightarrow & \Delta_n(\text{O}_{\text{LocSys}_G}) \\ \uparrow & & \uparrow \\ \text{Ded}(\text{Bun}_G^{X(n)}) & \simeq & \text{QGL}(\text{LocSys}_G^{X(n)}) \end{array}$$

- Expect: K_n makes sense in any sheaf theory
- $\text{fact}(K_n) \in \text{Funct}(\text{Bun}_G^{x_n}(\mathbb{F}_q))$
- $K_n^d \in \mathcal{OGL}((T^* \text{Bun}_G)^{x_n})$



$$K_n^d = \mathcal{O}_-$$

$$(T^* \text{Bun}_G)^{x_n} \text{Hitch} / \ker(\cancel{J^{x_n}} \rightarrow J)$$

Correct this.

- quasi-classical str. can be obtained

- K_n equipped with a section.
 S_n - solution to the corresponding differential equation.

$L_2(\text{Bun}_G(\mathbb{C}))$

- Write as analogous formula for
 f_n as $\mathbb{C} \rightarrow \mathbb{S}^p$.
-