

$$\gamma_{\lambda^1} = \delta(\cdot) \gamma^1$$

$$\gamma_{\lambda^1} = \int_{\mathbb{R}^n \setminus \overline{\mathbb{R}^q \gamma}} d\tilde{\lambda} \gamma^1 e^{-\lambda^1}$$

$$\tilde{\lambda}^1 \gamma = \delta(\cdot) \int_{\mathbb{R}^q} d\lambda^1 \gamma^1 = \delta(\cdot) \int_{\mathbb{R}^q} \gamma^1$$

$$\tilde{\lambda} \in \mathbb{R}^n \setminus \overline{\mathbb{R}^q \gamma} \xrightarrow{\gamma^1} \mathbb{C}^p \ni \lambda^1$$

$$\int_{\mathbb{R}^p} \lambda^1 \varphi = \int_{\mathbb{R}^n \setminus \overline{\mathbb{R}^q \gamma}} \lambda^1 \gamma^1 \varphi$$

$$\text{LHS} = \int_{\mathbb{R}^n \setminus \overline{\mathbb{R}^q \gamma}} \gamma^1 e^{-\lambda^1} = \int_{\mathbb{R}^n \setminus \overline{\mathbb{R}^q \gamma}} \delta(\cdot) \int_{\mathbb{R}^q} \gamma^1 e^{-\lambda^1}$$

$$= \delta(\cdot) \int_{\mathbb{R}^p} e^{-\lambda^1} \int_{\mathbb{R}^q} \gamma^1 = \delta(\cdot) \int_{\mathbb{R}^p} e^{-\lambda^1} \gamma^1 = \text{RHS}$$