

$$\begin{array}{ccccc} \mathcal{O}(K_M \otimes [V])(U) & \xrightarrow{\text{restriction}} & \mathcal{O}(K_M \otimes [V])(V \cap U) & \xleftarrow{=} & \mathcal{O}(K_V)(U \cap V) \\ \downarrow \psi & & \downarrow \psi & & \downarrow \psi \\ \omega = g(z) dz_1 \wedge \dots \wedge dz_n \otimes \sigma & & \omega|_V & \longleftrightarrow & \omega' \end{array}$$

$$\begin{array}{ccccc} \mathcal{O}(K_M \otimes [V])(U \cap V) \otimes \mathcal{O}([E-V])(U \cap V) & \longleftrightarrow & \mathcal{O}(K_V)(U \cap V) \wedge \mathcal{O}([E-V])(U \cap V) \\ \downarrow \psi & & \downarrow \psi & & \downarrow \psi \\ \omega|_V & \otimes & df & & \omega' \wedge df \end{array}$$

$$\sigma \otimes df = 1 \text{ on } V.$$

$$\omega|_V \otimes df = g(z) dz_1 \wedge \dots \wedge dz_n|_V$$

$$\mathcal{O}(K_M)(U \cap V)$$

$$\omega' \wedge df = g(z) dz_1 \wedge \dots \wedge dz_n|_V$$

$$\begin{aligned} \Downarrow \\ \omega' \wedge \frac{df}{f} &= \frac{df}{f} \wedge \omega' = \frac{g dz_1 \wedge \dots \wedge dz_n}{f} \\ &\text{on } V. \end{aligned}$$