

Let  $D$  be an free set with anchoring set  $B$ . We say a tracial free function  $f : B \rightarrow \mathbb{C}$  is a global germ if it analytically continues along every path in  $D$ . Since every tracial free function is a free functions<sup>1</sup>, the Universal Monodromy Theorem tells us that  $f$  has a unique analytic continuation to all of  $D$ . Pick an  $X \in B$  and  $Y \in D$  and let  $\gamma_1$  be any path taking  $X$  to itself,  $\gamma_X$  be the constant path, and  $\gamma_2$  take  $X$  to  $Y$ . Since  $f$  has a unique continuation to all of  $D$ ,  $f(\gamma_2\gamma_1) = f(\gamma_2\gamma_X)$  since we identify both with  $f(Y)$ . Therefore,  $\gamma_1$  is trace equivalent to  $\gamma_X$ —and  $\pi_1^{\text{tr}}$  is trivial.

---

<sup>1</sup>THIS IS THE ISSUE!