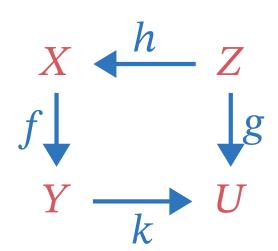
## **Definition** (Twisted arrow category)

Given a category C, we denote its *twisted arrow category* by Tw(C). This is a category which is composed of:

- 1. Objects: Arrows (morphisms) in C.
- 2. *Morphisms*: A morphism between two arrows  $f: X \to Y$ ,  $g: Z \to U$  is given by a pair of arrows  $\langle h, k \rangle$  such that the following diagram commutes:



3. Composition: Composition in Tw(C) is given by placing commutative squares side by side.

ACT4EBOOK–402: More details about composition in twisted-arrow. Show diagram?