

Monads

$$(1) \quad \text{return } v \gg= \lambda x. k \ x \quad = \quad k \ v$$

$$(2) \quad m \gg= \lambda x. \text{return } x \quad = \quad m$$

$$(3) \quad m \gg= (\lambda x. k \ x \gg= (\lambda y. h \ y)) \quad = \quad (m \gg= (\lambda x. k \ x)) \gg= (\lambda y. h \ y)$$

- Eugenio Moggi, **Computational Lambda Calculus and Monads**, *Logic in Computer Science*, 1989.
- Philip Wadler, **Comprehending Monads**, *International Conference on Functional Programming*, 1990.
- Philip Wadler, **The Essence of Functional Programming**, *Principles of Programming Languages*, 1992.