Example : Graded Environment Monad

$$M : \mathscr{P}(E) \to [\text{Set}, \text{Set}]$$

$$M_X(A) = X \Rightarrow A$$

$$\eta_A : A \to M_\varnothing A$$

$$\mu_A : M_X M_Y A \to M_{X \cup Y} A$$

$$\texttt{>>=} : M_x A \to (A \to M_Y B) \to M_{X \cup Y} B$$

Towards a Formal Theory of Graded Monads

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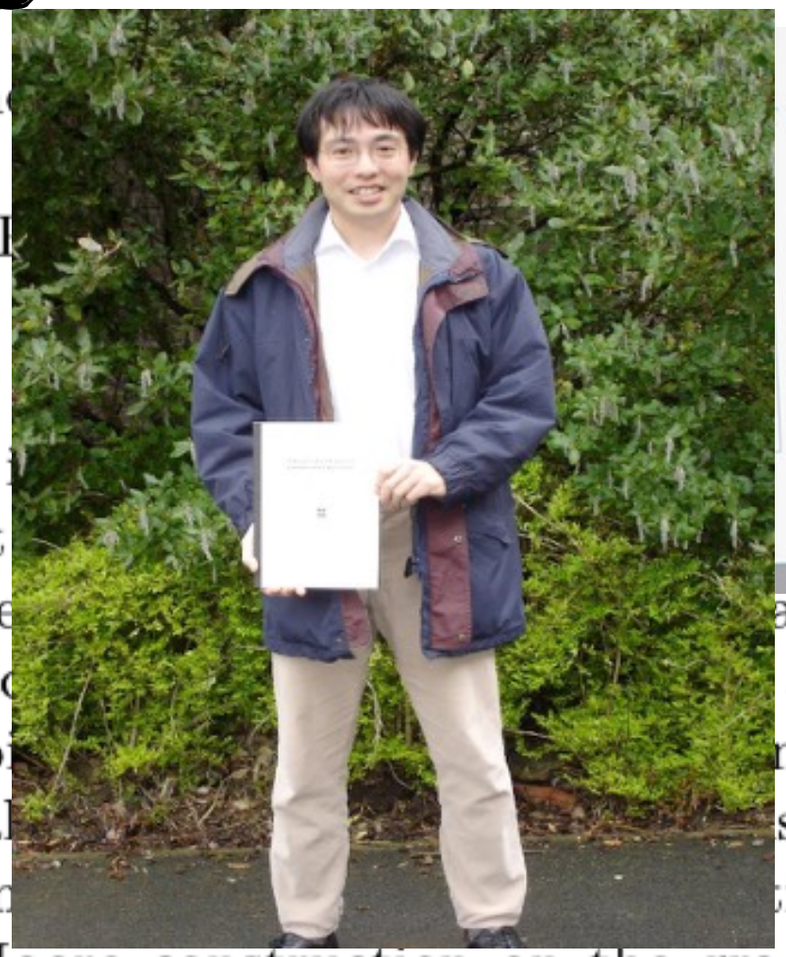
[1] Departm

[3] Laboratoire I



Abstract. We
pose is to adapt
by Street in the e articular that every graded
monad can be fac a strict action transported
along a left adjoi n what sense the first con-
struction general struction while the second
construction gen tion. Finally, we illustrate
the Eilenberg-Moore construction on the graded state monad induced
by any object V in a symmetric monoidal closed category $\mathscr{C}$.