AN ORTHOGONAL APPROACH TO ALGEBRAIC WEAK FACTORISATION SYSTEMS

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Factorisation systems (both weak and strong) are commonly defined as consisting of two classes of maps satisfying a certain orthogonality relation and a factorisation axiom. The standard definition of algebraic weak factorisation system, involving comonads and monads, is rather different. The goal of this talk will be to describe an equivalent definition of algebraic weak factorisation system emphasising orthogonality and factorisation.