

Definition (Algebraic definition of UMCDPs)

An Uncertain MCDP (UMCDP) is a tuple $\langle \mathcal{A}, \mathsf{T}, \boldsymbol{v} \rangle$, where \mathcal{A} is a set of atoms, $\mathsf{T} \in \mathsf{Terms}(\{\mathsf{series}, \mathsf{par}, \mathsf{loop}\}, \mathcal{A})$ is the algebraic representation of the graph, and $\boldsymbol{v} : \mathcal{A} \rightarrow \mathbf{UDP}$ is a valuation that assigns to each atom a UDP.