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P-free dead-ending misere games

In recent years, misere game research has focussed on play that is restricted to a given subset or 'universe' of games. The set of dead-ending games is the most well-studied misere universe. Consider the subset of dead-ending games that are '$\mathcal{P}$-free': games with outcome $\mathcal{L}$, $\mathcal{N}$, or $\mathcal{R}$, with no followers that are previous-win. Note that $* = \{\cdot|\cdot\}$ is not $\mathcal{P}$-free. This set of games exhibits a number of algebraic properties from normal play that do not hold in misere play (even when restricted to dead-ending games). For example, a left-win game plus a left-win game is left-win, and $\mathcal{L} + \mathcal{N}$ is either $\mathcal{L}$ or $\mathcal{N}$. This talk will prove these and other properties and will discuss in-progress conjectures about the closure and invertibility of $\mathcal{P}$-free games.