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Partizan Kayles and Misere Invertibility

The combinatorial game Kayles is played on a row of bowling pins, with players 'Left' and 'Right' taking turns knocking down either a single pin or two adjacent pins. One natural partizan variation is to allow Left to knock only single pins and Right only pairs of adjacent pins. This talk develops a complete solution for Partizan Kayles under misere play (where the player to knock the last pin loses), and discusses its significance in the context of misere invertibility: the monoid of Partizan Kayles contains a game position with an additive inverse that is not its negative.