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Mary Leah Karker* (mkarker@providence.edu), Dept of Mathematics and Computer Science, Providence College, 1 Cunningham Square, Providence, RI 02918, and **Ryan Alvarado, Maia Averett, Benjamin Gaines, Christopher Jackson, Malgorzata Aneta Marciniak, Francis Edward Su** and **Shanise Walker**. *The Game of Cycles and the Filled Board Theorem*.

This talk concerns the Game of Cycles as described in Su's 2020 book, *Mathematics for Human Flourishing*. In this game, two opponents take turns marking edges on a planar graph with a direction. No sinks or sources are allowed. The game ends in a win when one player completes a directed cycle on the boundary of a single cell or when the last playable move is made. In this talk we will discuss general gameplay and present a proof that every finite, connected game board in which all edges have been marked with a direction must contain a directed cycle surrounding a single cell. (Received September 17, 2019)