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Sarah Blackwell* (seblackwell@uga.edu). *Triple Knot Grid Diagrams*. Preliminary report.

In this talk I will introduce a project I have been working on which uses trisections of 4-manifolds to represent Lagrangian-like surfaces in $\mathbb{C}\mathbb{P}^2$ by “triple knot grid diagrams.” Gay and Kirby defined a decomposition of (smooth, closed, connected, oriented) 4-manifolds called a trisection, and proved that every such 4-manifold admits this decomposition. Meier and Zupan showed that surfaces embedded in 4-manifolds inherit a trisection from the trisection of the 4-manifold. Their work includes a description of how to represent these surfaces with “shadow diagrams.” In this project I consider specific shadow diagrams of surfaces in $\mathbb{C}\mathbb{P}^2$ that naturally arise as grid diagrams on the central surface of the standard (genus one) trisection of $\mathbb{C}\mathbb{P}^2$. In this talk I will describe the construction of these diagrams, and explain why the surfaces I am thinking about are “Lagrangian-like.” (Received September 19, 2021)