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**William Menasco** and **Margaret Nichols\*** ([nicholsm@buffalo.edu](mailto:nicholsm@buffalo.edu)). *Characterizing  $S^2 \hookrightarrow \mathbb{R}^3$  via the crease set.*

The crease set of a surface embedded in  $\mathbb{R}^3$  captures where the surface folds under a choice of projection  $\mathbb{R}^3 \rightarrow \mathbb{R}^2$ . In forthcoming work, we develop tools to characterize the crease set of an embedded sphere and its behavior under isotopy of the embedding. In this talk, we introduce some of these tools, explore some examples, and discuss potential applications. (Received August 11, 2020)