

1172-62-151

Nate Strawn*, Department of Mathematics and Statistics, Georgetown University, 2240 40th St., N.W., Washington, DC 20007. *Hyper Frames and Filament Plots for Data Visualization*.

We construct a computationally inexpensive 3D extension of Andrew's plots by considering curves generated by Frenet-Serret equations and induced by optimally smooth 2D Andrew's plots. This construction requires frames that enjoy properties of super frames and fusion frames, which we call "hyper frames". In the infinite dimensional case, we construct continuous frames that admit an asymptotic hyper frame structure, and produce optimally smooth 2D Andrew's plots. Some examples and algorithms are also provided for the finite dimensional case. (Received August 24, 2021)