

Long lecture

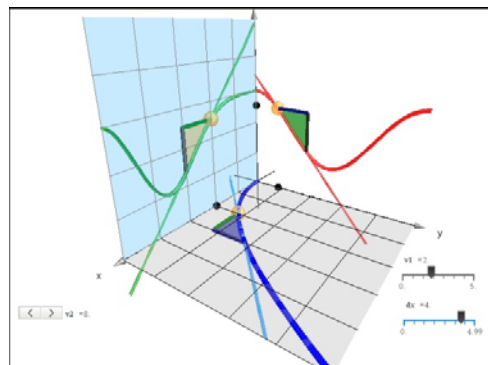
3D & TI-Nspire CAS: What is Available, What is Missing and How to Adapt

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Abstract

In our multivariable calculus classes, 3D graphs and animations are used to present new concepts and to verify results. Last year's OS 3.2 marked a major improvement in the TI Nspire CAS graphing capabilities by introducing 3D parametric plotting. However, with its restricted functionalities, the 3D menu items are not yet equivalent to what is available in the 2D plot environment.

In this presentation, we will illustrate how we can work around the 3D plotting limitations to access important geometric objects that are available in the 2D environment e.g. points, vectors or curve with thickness. We will also present a library that was created by colleagues in order to facilitate 3D-object plotting. Examples used in our calculus classes will be provided: partial derivative, tangent plane, normal vector, and chain rule.



Keywords

3D graphs, calculus, 3D library for TI Nspire, parametric plotting