

# Using Notes with Interactive Math Boxes in TI-Nspire Software Version 2

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Workshop Proposal for the TI-Nspire & Derive Strand

## ABSTRACT

The recently announced TI-Nspire Version 2 software contains a new feature in the Notes application called Interactive Math Boxes with which interesting and powerful CAS documents can be created. In this workshop, participants will create several documents that exploit this feature to develop student understanding of calculus and linear algebra topics. Then the workshop facilitator will demonstrate and participants will work with a variety of documents that use this and other features of Version 2 in topics from calculus, matrix theory, and differential equations.

In addition, a discussion of the types of questions that such interactive software documents afford for increasing student engagement and mathematical understanding.

Although no previous experience with TI-Nspire is expected, participants should be familiar with the Microsoft Windows and Word interfaces to feel comfortable in this workshop.

Mathematics topics covered will include:

L'Hospital's Rule

Riemann Sums

The epsilon-delta definition of the limit of a function

Types of Solutions to Systems of Linear Equations

Eigen values and Eigen vectors

The Fundamental Theorem of Calculus

The solutions to differential equations

## Keywords

interactive mathematics, TI-Nspire, inquiry-base learning, calculus, linear algebra

### **Observations**

TI-Nspire CAS Version 2 software should be loaded on the computers in the lab. The facilitator will provide participants with a flash drive containing TI-Nspire documents. There is likely to be some discussion of concepts of interest to conference participants who are primarily interested in the ACDCA program.