

Undergraduate Mathematics Colloquium

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**“Beyond classical derivatives, still using
calculus”**

Friday March 3

Talk at 4:00 in Herman Brown 227
Tea at 3:30 in Herman Brown 438

ABSTRACT: Getting a smooth solution for a physical phenomenon is highly desirable. We observe corners and cusps in real life, for instance in the flow of some water on a surface or in a wave. By extending the notion of differentiability, we are able to model these events mathematically. In this talk, we present these notions. Last but not least, we get our square wave solution of the wave equation by using these concepts. The audience should be surprised that we can give such definitions using only basic calculus.

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