HUMBOLDT STATE UNIVERSITY Spring 2020 Colloquium Series DEPARTMENT OF MATHEMATICS February 27, 4pm BSS 166

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A BRIEF ENCOUNTER WITH THE DISTRIBUTIONAL KIND

In this talk I will lead an introductory investigation into **distributions**, also known as **generalized functions**. The most famous example of such was introduced by Paul Dirac in 1930 with motivation from physics. These objects may be not be continuous or even finite if interpreted as "usual functions", but when properly understood are seen to be quite well-behaved and in fact infinitely differentiable. We will learn what a distribution is, meet a few examples, study some interesting properties, and check out some applications. Only knowledge of single variable calculus is necessary to join in the fun.