

1106-VD-177 **Jing-Zhong Zhang** and **Shangzhi Li*** (ztong@otterbein.edu), Beihang University, Beijing, Peoples Rep of China, and **Zengxiang Tong**. *A Piece of the Third Generation of Calculus*. Preliminary report.

This talk comes from Dr. Zhang's more than a decade of research on the third generation of calculus. The rigorous calculus is based on ε - δ limit theory, which is very difficult for high school students and college freshmen to understand. Without using limit theory, the third generation of calculus is rigorous, intuitive, and easy understood to high school students. This talk starts with a few examples, introduces concepts of Function A and Function B, and establishes the differential calculus. This talk also illustrates a research in educational mathematics. (Received August 04, 2014)