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Timothy C Boester* (timothy.boester@wright.edu). *Relating Delta and Epsilon: How Students Graphically Create an Understanding of the Formal Definition of Limit at a Point*. Preliminary report.

Different theories of how students come to conceptualize the formal definition of limit at a point have all broken apart the monolithic definition into conceptual pieces. This preliminary report will explore how students graphically relate delta and epsilon intervals. After a classroom activity introducing the formal definition, undergraduates were asked to complete a series of graphical diagrams in order to judge the appropriateness of delta-epsilon pairings in an interview setting. The talk will describe how students completed these diagrams, and how the choices students made when judging the pairings correlate with their understanding of the conceptual pieces of the formal definition of limit at a point. (Received September 17, 2013)