1086-97-1761 **Carlos Castillo-Garsow*** (cwcg@math.ksu.edu), Dept. of Math, Kansas State University, Cardwell Hall, Manhattan, KS 66506, and **Andrew G Bennett** (bennett@math.ksu.edu), Dept. of Math, Kansas State University, Cardwell Hall, Manhattan, KS 66506. *Developing strong mathematical concepts with multi-touch.* Preliminary report.

The rise of cellphones and touch tablets bring new interface challenges for developing tools for the mathematics classroom. Control of mathlets is typically focused around a mouse: a single point of control with two axes of movement. But what new possibilities open up when multiple points of control become common place? Can challenging problems or challenging ideas be made more accessible? What sorts of activities and ideas require multiple points of control for students to engage with them? This presentation focuses on how multi-touch interfaces have the potential to aid in developing strong mathematical conceptions that students often struggle with. We will give examples of multi-touch tools for use in the classroom, as well as how they may be used to directly introduce and subtly reinforce strong understandings of core mathematical concepts. (Received September 24, 2012)