1154-03-1435 **Elliot Kaplan*** (eakapla2@illinois.edu), Department of Mathematics, University of Illinois at Urbana-Champaign, Urbana, IL 61801. *An introduction to HT-fields.*

In this talk, I will introduce the class of HT-fields. Let T be an o-minimal theory extending the theory of ordered fields and let K be a model of T which is also equipped with a nontrivial derivation $x \mapsto x'$ making it an H-field (a particularly nice type of ordered differential field). We require that this derivation interact nicely with the o-minimal structure on K. For example, if K is elementarily equivalent to the real exponential field, we require that $\exp(a)' = \exp(a)a'$ for all $a \in K$. If these conditions are met, we say that the expansion of K by this derivation is an **HT-field**. The class of H-fields has been thoroughly explored by Aschenbrenner, van den Dries, and van der Hoeven. I will establish some analogues of their results on H-fields for the class of HT-fields. (Received September 15, 2019)