

1106-12-1070      **Lou van den Dries\*** ([vddries@math.uiuc.edu](mailto:vddries@math.uiuc.edu)), University of Illinois, Department of Mathematics, 1409 West Green St, Urbana, IL 61801. *Model theory of transseries*. Preliminary report.

This is a report on a collaboration with Matthias Aschenbrenner and Joris van der Hoeven. Last spring we finished a twenty year quest by finding and proving the key model-theoretic and algebraic facts about the differential field of transseries (in the spirit of Tarski's classical results about the logical properties of the field of real numbers). After outlining this work, I will discuss some problems about the differential algebra and model theory of transseries that are still open. (Received September 10, 2014)