1106-03-1412 **James Freitag**, University of California, Berkeley, Department of Mathematics, Evans Hall, Berkeley, CA 94720-3840, and **Thomas Scanlon***, University of California, Berkeley, Department of Mathematics, Evans Hall, Berkeley, CA 94720-3840. *Complicated strongly minimal sets from the j-function.*

Using the Schwartzian derivative to convert the inverse of the j-function to a well-defined nonlinear differential constructible function $\chi : \mathbb{A}^1 \to \mathbb{P}^1$ one may consider the sets defined by $\chi(x) = a$ for varying a in a differentially closed field of characteristic zero.

Using a functional transcendence theorem of Pila and Seidenberg's embedding theorem, we show that the fibres of χ are strongly minimal and pairwise orthogonal. Moreover, avoiding the set of constant points, the fibres have trivial forking geometry.

These results answer negatively a long standing problem whether a strongly minimal set with trivial forking geometry in a differentially closed field must have $\aleph_0$-categorical induced structure over its canonical parameters and provide an explicit collection of types with which to construct uncountably many nonisomorphic countable differentially closed fields. Combined with an effective finiteness theorem of Hrushovski and Pillay, these results yield explicit bounds in some problems of André-Oort type raised by Mazur. (Received September 12, 2014)