1135-18-1199   **Michael Norman Crumley*** (`crumley@findlay.edu`), The University of Findlay, 1000 N. Main
St., Department of Mathematics, Findlay, OH 45840. *Ultraproducts of Tannakian Categories.*

We consider neutral tannakian categories as first-order structures in an appropriately chosen language, and show that while
the property of being tannakian is first-order, being neutral is not. We therefore introduce the restricted ultraproduct
of neutral tannakian categories, which is itself a neutral tannakian category, and compute its underlying Hopf algebra.
It is often then possible to do computations (e.g. cohomological) in the restricted ultraproduct which then hold "almost
everywhere" in the factors, leading to generic results in the representation theory of algebraic groups. (Received September
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