Joseph E Borzellino and Victor W Brunsden\* (vwb2@psu.edu), 3000 Ivyside Drive, Altoona, PA 16601. A dictionary for translating between orbifolds and Lie groupoids. Preliminary report.

We construct a dictionary that translates between the categorical approach to orbifolds via their description as Morita equivalence classes of proper etale Lie groupoids and the classical geometric approach of Satake and Thurston. As an application, we show that the Morita equivalence class of a proper etale Lie groupoid may be reconstructed from the group of complete orbifold diffeomorphisms of the corresponding orbifold. (Received August 15, 2010)