

The Stallings Proof on the Grusko-Neumann Theorem on Free Products of Groups

William A. Bogley
Oregon State University

In his 1959 PhD dissertation, John R Stallings gave a topological proof of the Grusko-Neumann theorem about generating sets of free products of groups. Specifically, any generating set can be transformed into a very simple and transparent one by a sequence of simple moves called Nielsen transformations. The theorem, which was originally proved using delicate cancellation arguments, does not specify exactly what those moves might be and so has an existential character to it. When Stallings published his proof in 1965, he noted that his topological approach had an 'effective' character to it. With apologies to Professor Stallings, this talk will describe his approach in an attempt to isolate what is effective about it.

Friday, April 4th, 2008

3:40PM

MG 108

Refreshments: 3:20 pm in MG226