

Presentations of Coxeter groups of type A , B , and D using prefix-reversal generators

Saúl A. Blanco, Indiana University and Charles Buehrle*, Notre Dame of Maryland University

Here we provide three new presentations of Coxeter groups type A , B , and D using prefix reversals (pancake flips) as generators. We prove these presentations are of their respective groups by using Tietze transformations on the presentations to recover the well known presentations with generators that are adjacent transpositions.

Keywords: group presentations, prefix reversal, Coxeter groups, (burnt) pancake problem