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**Gabriel Islambouli\*** (gfi8ps@virginia.edu). *Nielsen equivalence and isotopy classes of trisections.*

Let  $S = \{s_1, \dots, s_n\}$  and  $T = \{t_1, \dots, t_n\}$  be sets of generating systems of a group  $G$ .  $S$  and  $T$  are said to be Nielsen equivalent if there exist bases  $X = \{x_1, \dots, x_n\}$  and  $Y = \{y_1, \dots, y_n\}$  of the free group of rank  $n$ ,  $F_n$ , and a surjection  $\phi : F_n \rightarrow G$  so that  $\phi(x_i) = s_i$  and  $\phi(y_i) = t_i$ .

Heegaard splittings give rise to two Nielsen classes of generators for the fundamental group and this fact has been used extensively to distinguish isotopy classes of Heegaard splittings. We show how to leverage this, together with Meir's spin construction, to produce a large class of 4-Manifolds which admit many isotopy classes of trisections. (Received February 15, 2018)