
A dense family of finite 1-generated left-distributive groupoids

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The study of nonidempotent 1-generated left-distributive groupoids which are not Laver Tables has been slowed by the chaotic combinatorics of this class. I present a simplification of Drapal's characterization scheme, exhibiting an explicit class \mathcal{F} of finite LD groupoids given by five integer parameters, such that every finite 1-generated LD groupoid can be represented as a homomorphic image of a groupoid from \mathcal{F} .

I will also discuss the relevance of this family to a problem of Richard Laver, of removing the large-cardinal hypotheses from the proof that the free 1-generated LD groupoid is residually finite.