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Title: Groups of real-analytic circle diffeomorphisms

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Abstract: With original motivation coming from the dynamical study of codimension one foliations, we describe what finitely generated groups of real-analytic diffeomorphisms (should) look like, up to topological semi-conjugacy.

Groups that are non-locally discrete are very close to Lie groups (works of Shcherbakov-Nakai-Loray-Rebelo...).

Groups that are locally discrete are conjecturally of Fuchsian type or virtually-free. In the latter case, they are understood using Markov partitions that reflect the tree-product structure. This combinatorial description has several interesting consequences: for instance, we discover the first known examples of such groups that are free but not of Fuchsian type; on the other side, we prove that groups isomorphic to $\mathbf{Z}_2 * \mathbf{Z}_3$ may only be Fuchsian.

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