

Cayley maps and product groups

Hao Yu

*Guangxi University**Nanning, Guangxi 530004, P. R. China.*

haoyu@gxu.edu.cn

A (generalized) regular Cayley map \mathcal{CM} is a special 2-cell embedding of a Cayley graph onto orientable (or any) compact connected surface. Let $X = \text{Aut}(\mathcal{CM})$ be the automorphism group of \mathcal{CM} on the group G . It is well known that either $X = G \cdot \mathbb{Z}_n$ or $X = G \cdot D_{2n}$. This is closely related to problems about group factorizations or product groups. Generally, a group X is said to be properly factorizable if $X = GH$ for two proper subgroups G and H of X . In this case, X is the product group of G and H . In this talk, some recent results on (generalized) regular Cayley maps and product groups will be introduced.
