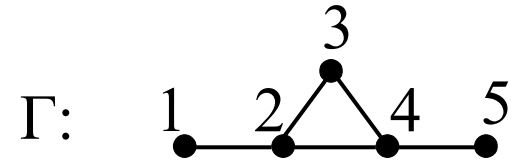
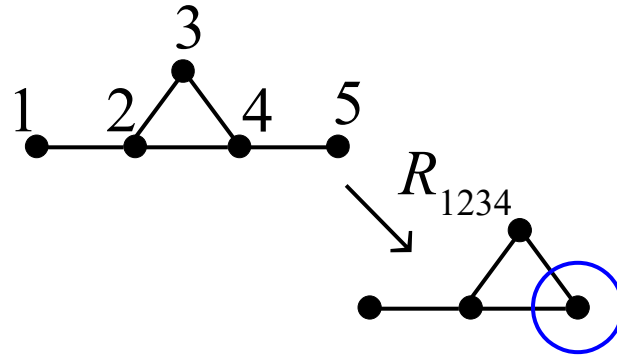


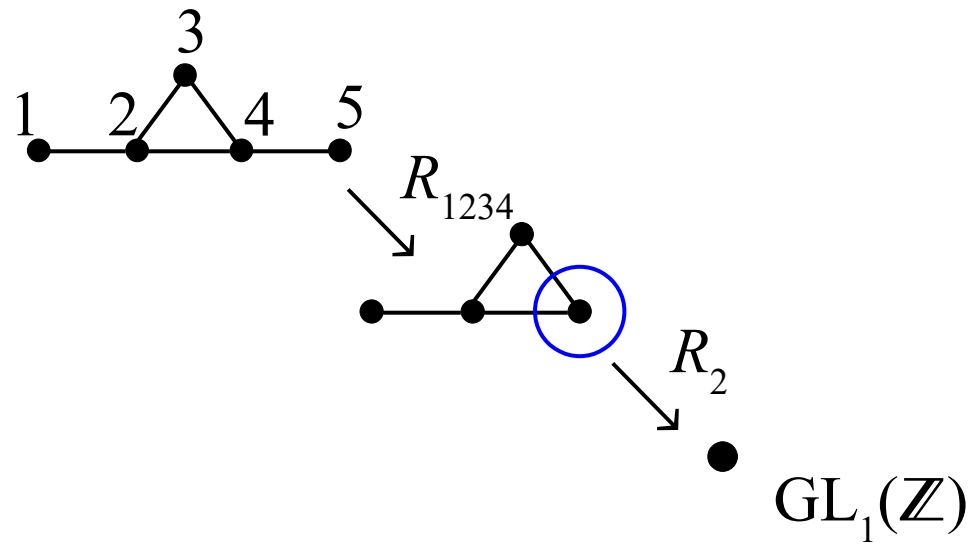
Example 1



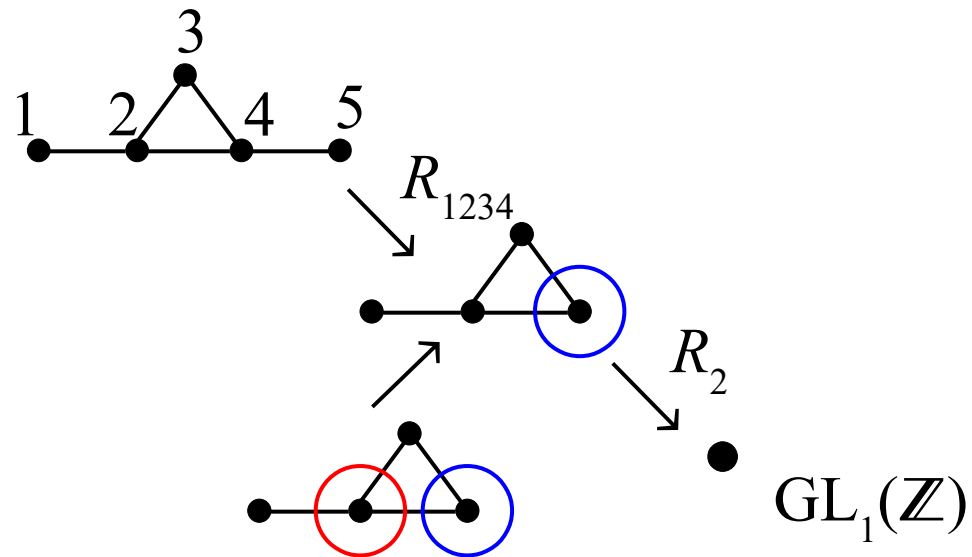
Prove something about $\text{Out}^0(A_\Gamma)$ by induction.



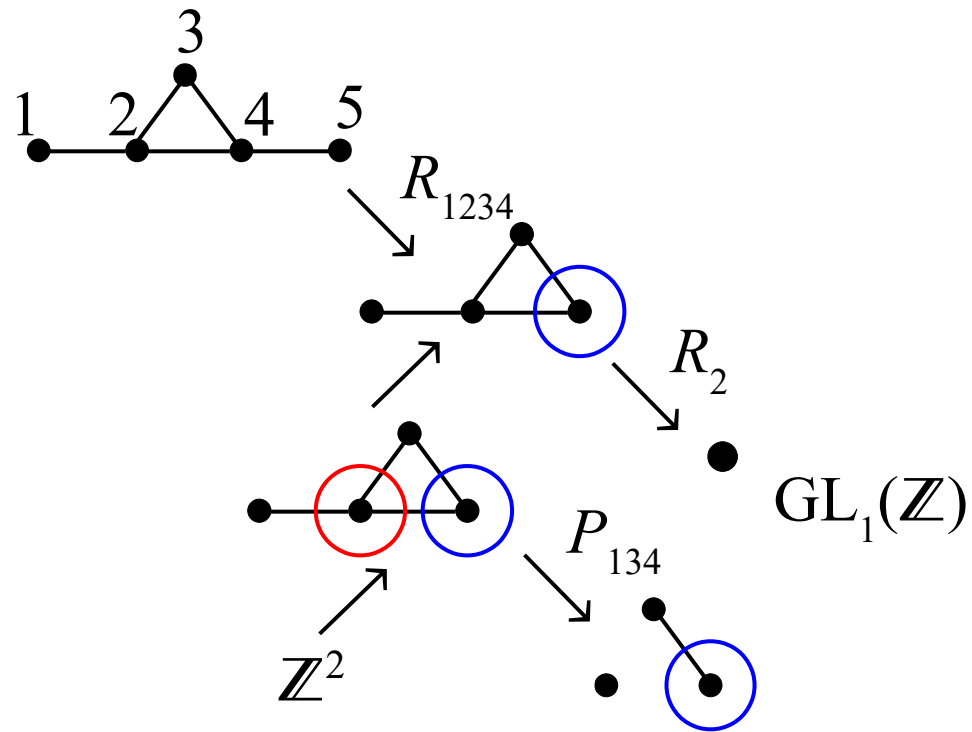
A_{1234} has a restriction map R_{1234} . Its image is $\text{Out}^0(A_\Gamma; \mathcal{G})$, where \mathcal{G} contains only the special subgroup highlighted in blue.



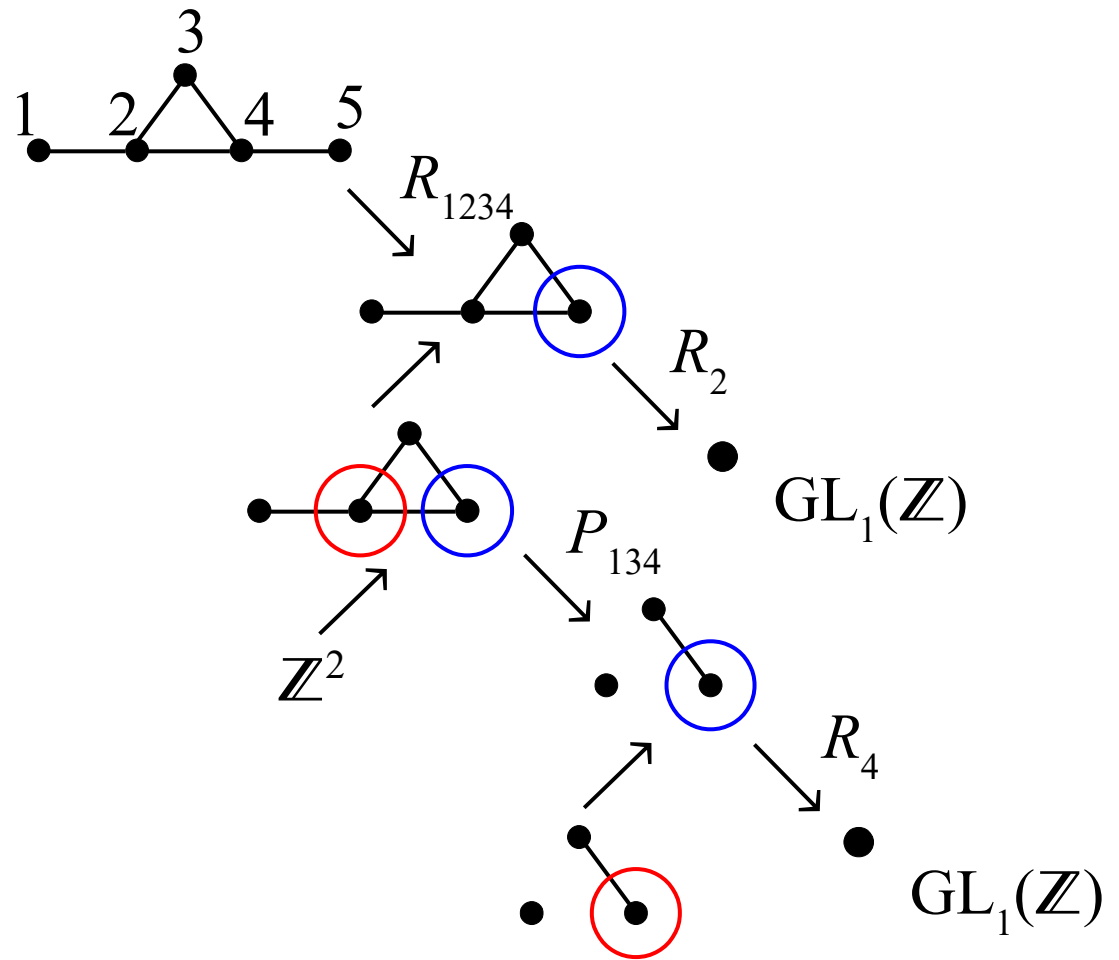
Take another restriction. The image group is now a base case, and we identify it.



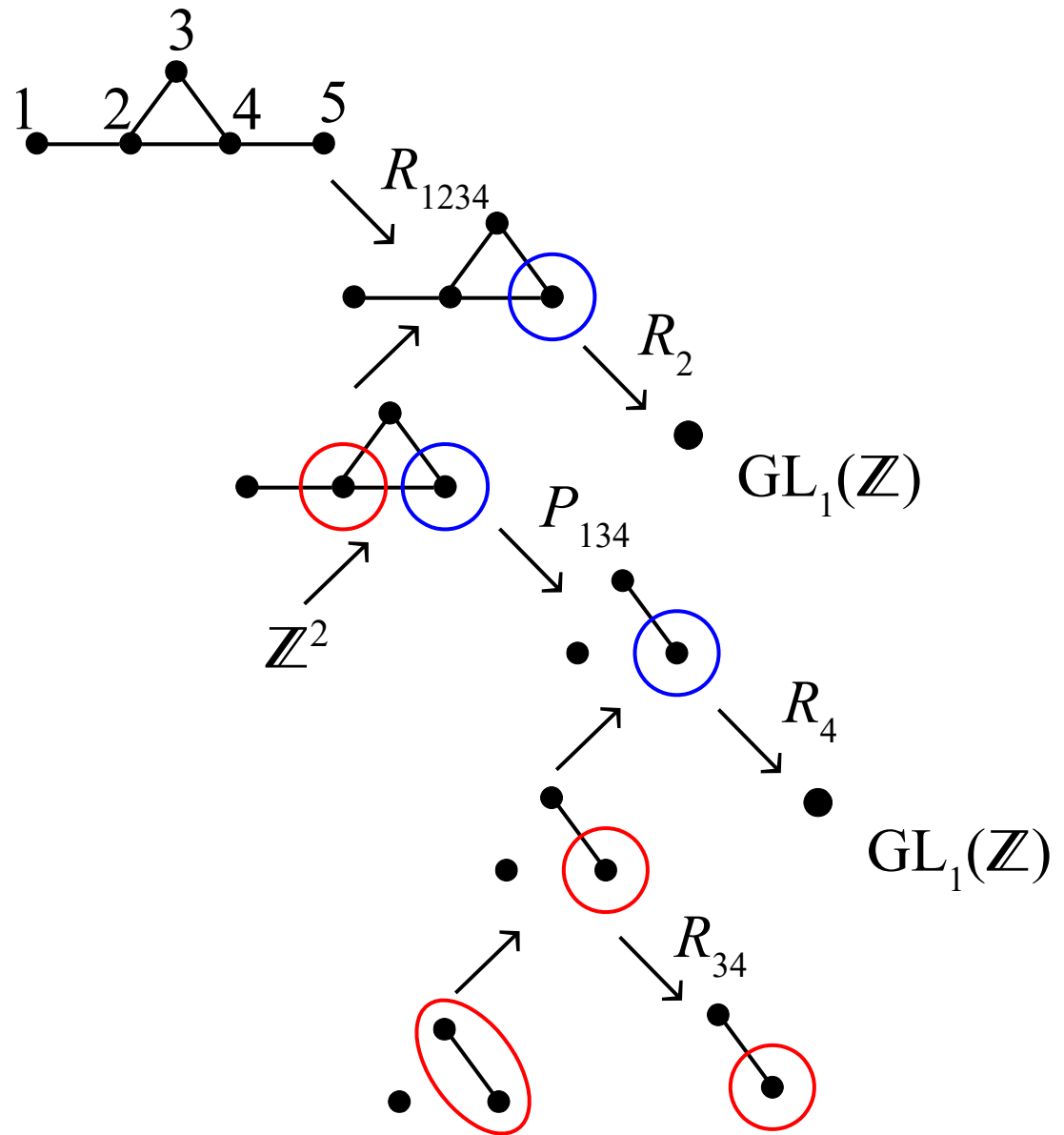
The kernel of the second restriction is $\text{Out}^0(A_\Gamma; \mathcal{G}, \mathcal{H}^t)$, where \mathcal{G} consists of the blue subgroup and \mathcal{H} consists of the red subgroup.



This group has a nontrivial projection map. The kernel is not a ROAR, but is a free abelian subgroup generated by twists.

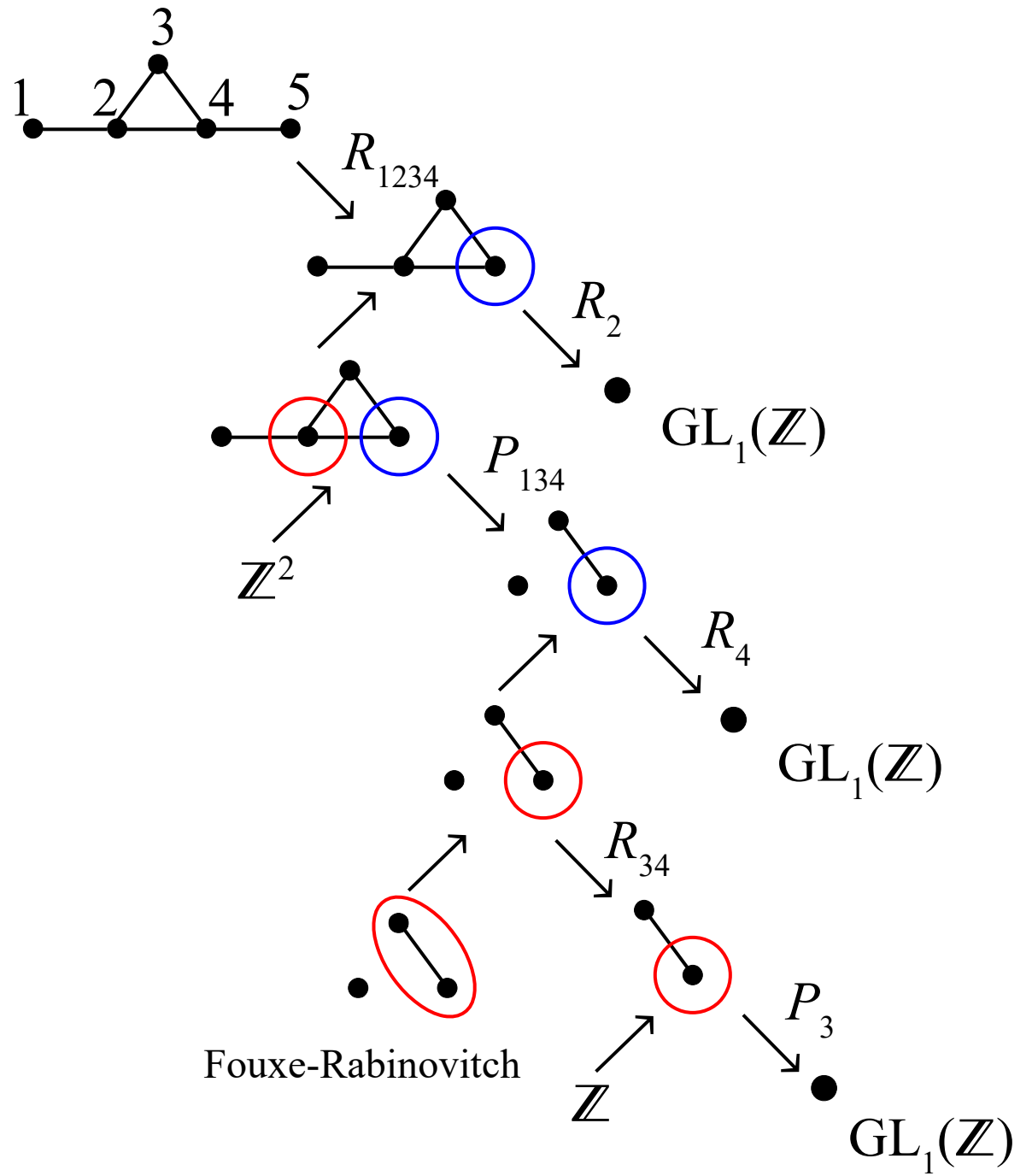


We continue this process.

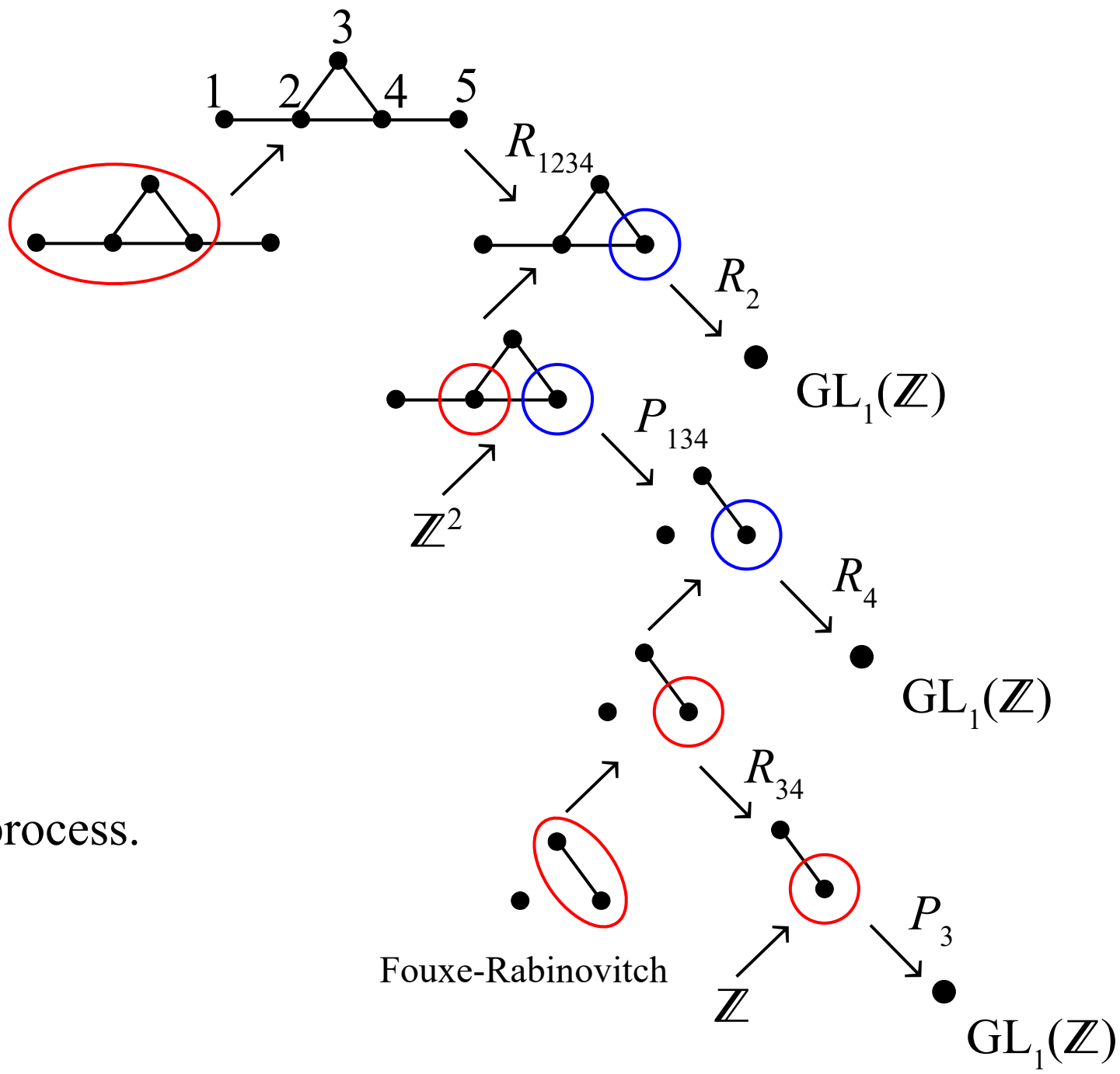


We continue this process.

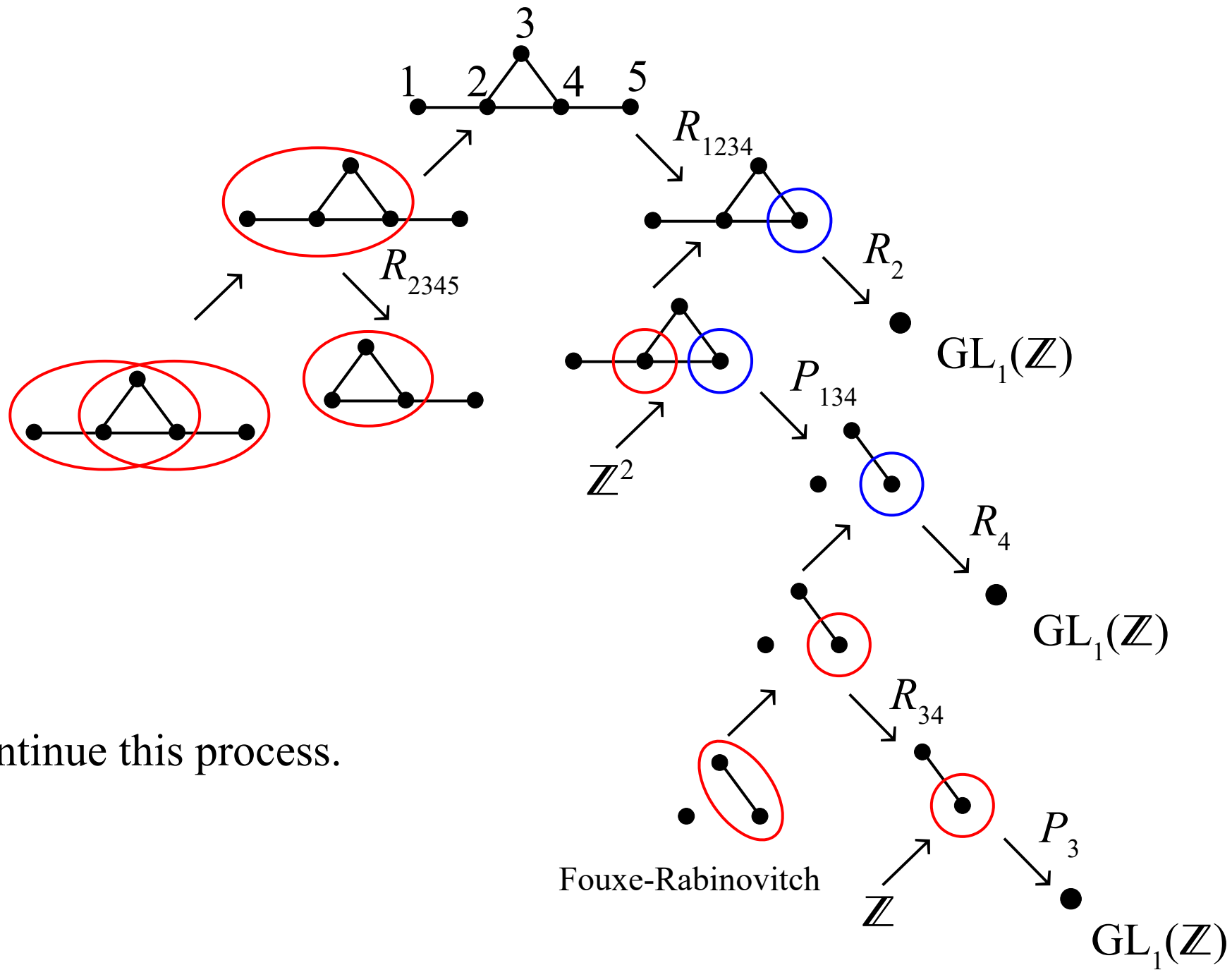
Fouxé-Rabinovitch



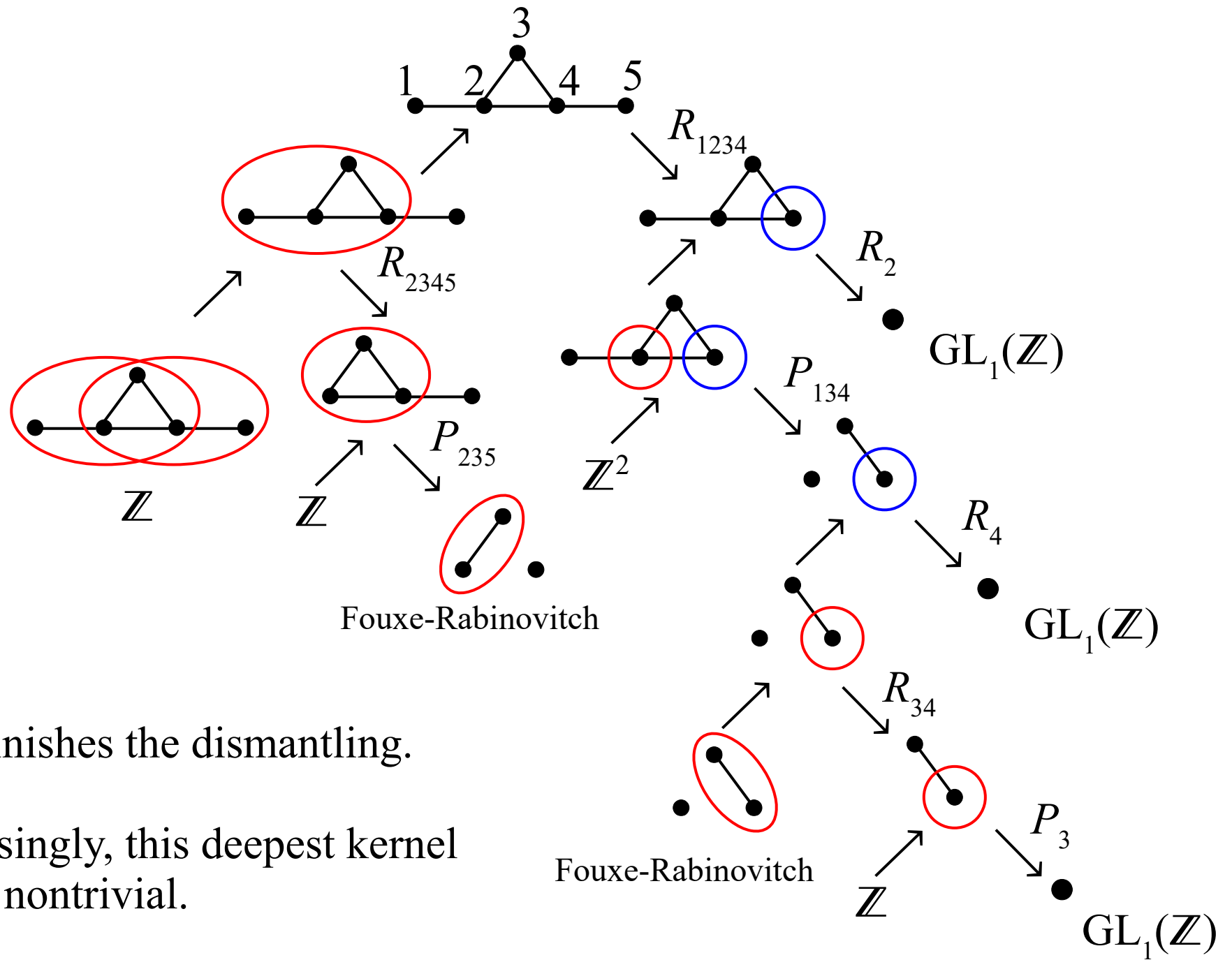
We continue this process.



We continue this process.



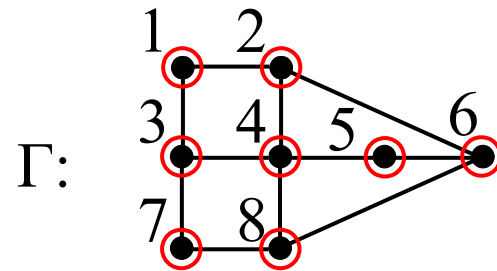
We continue this process.



This finishes the dismantling.

Surprisingly, this deepest kernel is still nontrivial.

Example 2



Consider the pure symmetric outer automorphisms of A_Γ .

