Construction of the Lamplighter Group

Abstract:

The Lamplighter Group is the name given to the restricted wreath product $\mathbb{Z}/2\mathbb{Z} \wr \mathbb{Z}$. In this talk we will explain the reason behind this name and offer a figurative description of the group, followed by an explanation of how a wreath product, and the Lamplighter Group in particular, is constructed as an outer semidirect product. We will then introduce the problem which motivates our study of it.