Groups and symmetries: From the Neolithic Scots to John McKay April 27 – 29, 2007

Irrational Moonshine

Simon Norton

S.Norton@dpmms.cam.ac.uk Department of Pure Mathematics & Mathematical Statistical University of Cambridge 16 Mill Lane Cambridge, England CB3 0WB UK

Abstract

Following the enumeration of all genus zero modular groups containing some $\Gamma_0(n)$ by Cummins, I discuss the properties of the corresponding Hauptmoduls, including possible relations between the moonshine and replicability properties of such functions and the relevant groups.