

## Preface

Recent research has repeatedly led to connections between important rigidity questions and bounded cohomology. However, the latter has remained by and large intractable. This monograph introduces the functorial study of the continuous bounded cohomology for topological groups, with coefficients in Banach modules. The powerful techniques of this more general theory have successfully solved a number of the original problems in bounded cohomology. As applications, one obtains, in particular, rigidity results for actions on the circle, for representations on complex hyperbolic spaces and on Teichmüller spaces.

This text was written at the end of the time I spent at the ETH under the supervision of Prof. Marc Burger ; I am indebted to him for his generous advice, but actually the debt I owe him extends further : several of the results presented here are in fact joint work with him (see the Introduction). I am also grateful to Étienne Ghys who had the kindness to accept spontaneously to be the external examiner of this manuscript.

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