Preface

This book grew out of lecture notes written for a graduate topics course taught at the University of Notre Dame in the spring of 2012. The goal is to quickly introduce graduate students to ideas surrounding recent developments on extremal Kähler metrics. We make an effort to introduce the main ideas from Kähler geometry and analysis that are required, but the parts of the book on geometric invariant theory and K-stability would be difficult to follow without more background in complex algebraic geometry. A reader with a background in Riemannian geometry and graduate level analysis should be able to follow the rest of the book.

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