# Signatures in algebra, topology and dynamics

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**Abstract.** As the title suggests, this paper reviews some classical and less classical properties of quadratic forms and their signatures. We tried to collect several results which are not usually presented in a unified way. Our first chapter is essentially historical and describes the development of the theory of quadratic forms during the nineteenth century and the first half of the twentieth. The following chapters discuss applications to topology, dynamics and number theory, including modern developments.