1128-06-218   **Trang T Ha*** (`trangtha@gwu.edu`), 17 E Centre St, Apt 3, Baltimore, MD 21202. *Topology and Computability of Orders on Some Algebraic Structures.*

We consider order relations on a magma, an algebraic structures with a binary operation that is not necessarily associative or commutative. The space of orders on a magma consists of all possible orders (of a certain kind) on the structure. We investigate the computational complexity and topological properties of the spaces of orders on a computable magma. We are able to represent these orders as infinite paths of a computable binary tree, while preserving their Turing degrees. We are especially interested in the cases when such collections of infinite paths do not have computable ones. (Received February 27, 2017)