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Barbara Csima*, University of Waterloo, Department of Pure Mathematics, Waterloo, Ontario N2L 3G1, Canada. *Computable Structure Theory*.

Abstract: In computable structure theory, one examines various countably infinite structures (such as linear orderings and graphs) for their computability theoretic properties. For example, the standard theorem that any two countable dense linear orders without endpoints are isomorphic can be carried out computably, in the sense that if the two countable dense linear orders are nicely presented, then there must be a computable isomorphism between them. However, there are many examples of computable structures that are isomorphic but not computably isomorphic.

This talk will be an introduction to computable structure theory, explaining some standard examples, and indicating areas of current research. (Received September 09, 2008)