▸ LUCA SAN MAURO, *Effective analogues of the countable Borel equivalence relations.* Institute of Discrete Mathematics and Geometry, Vienna University of Technology.
E-mail: luca.san.mauro@tuwien.ac.at.

Coskey, Hamkins and Miller [1] proposed two possible analogues of the class of countable Borel equivalence relations in the setting of computable reducibility of equivalence relations on the computably enumerable (c.e.) sets. The first is based on effectivizing the Lusin-Novikov theorem while the latter is based on effectivizing the Feldman-Moore theorem. They ask for an analysis of which degrees under computable reducibility are attained under each of these notions.

We investigate these two notions, in particular showing that the latter notion has a strict dichotomy theorem: *Every such equivalence relation is either equivalent to the relation of equality ($=^{ce}$) or almost equality (E_0^{ce}) between c.e. sets.* For the former notion, we show that this is not true, but rather there are both chains and antichains of equivalence relations on c.e. sets which are enumerable in the indices and between E^{ce} and E_0^{ce}. This gives several strong answers to [1, Question 3.5] showing that in general there is no analogue of the Glimm-Efros dichotomy for equivalence relations on the c.e. sets.

This is joint work with Uri Andrews.

[1] S. Coskey, J.D. Hamkins, and R. Miller, *The hierarchy of equivalence relations on the natural numbers under computable reducibility*, forthcoming in ***Computability*** 1(1):15–38, 2016