1129-68-469 **BENOIT MONIN*** (benoit.monin@gmail.com), 75019 Paris, France. *Asymptotic density and error correcting codes.*

Andrews, Cai, Diamondstone, Jockusch and Lempp assigned in "Asymptotic density, computable traceability and 1-randomness" a value gamma (with lower case 'g') to each set of natural numbers, which indicates how far the set is from being coarse-computable. They used this to assign a value Gamma (with upper case 'G') to each Turing degree, which indicates how far the degree is from being coarse-computable. They proved that the Gamma values of 0, 1/2 and 1 can be realized. They also proved that if a Turing degree has a Gamma value strictly larger than 1/2, then it is the computable degree and its Gamma value in fact equals 1. They asked whether a Turing degree can have a Gamma value strictly in between 0 and 1/2.

Using notions from computability theory, developped by Monin and Nies, together with some techniques from the field of error-correcting codes, we are able to give a negative answer to this question: The only Gamma values that can be realized by a Turing degrees are $0, 1/2$ and 1. (Received March 21, 2017)