The uniformly non- low_2 c.e. degrees and the cl-reducibility

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The interplay between Turing and cl-reducibility expresses that the particular strong reducibility helps understand and characterize the lowness notion. For instance, each c.e. array computable degree can be characterized by some properties of cl-reduciblity of c.e. reals (or sets). In this talk, we introduce the uniformly non- low_2 c.e. degrees. This new class is not equivalent to the class of non- low_2 c.e. degrees. For any non-computable c.e. real, each uniformly non- low_2 c.e. degree T-bounds a c.e. real such that these two c.e. reals become a cl-maximal pair of c.e. reals. Since we construct a c.e. real which is not cl-reducible to any complex c.e. real, we can prove that each uniformly non- low_2 c.e. degree T-bounds such a c.e. real.