The evolving boundary of green technologies

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The paper relies on patent data retrieved in PATSTAT exploiting the 2016 and 2019 versions of the database. In so doing we are able to capture which patent has been re-classified as green comparing the two versions of the dataset – in which these changes are implemented. In particular, we take advantage of an exogenous change in the classification system that introduced new green classification codes in January 2018. This shock is exogenous since it introduces new classification codes (related to adaptation to climate change and ICT for energy generation) that were not present in previous versions imposing a reclassification of past patent documents within this group of technologies. Exploiting a difference-in-difference model, the preliminary results suggest that patents filed between 2000-2010, reclassified in January 2018 as green patents, receive more citations by subsequent inventions with respect to their control group.