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A SIMPLER CHARACTERIZATION OF *GBD*

ANTONIN CHAMBOLLE

The space "*GBD*" (Generalized functions with Bounded Deformation) was introduced by G. Dal Maso around 2010 to study a variational approach to crack growth in linearized elasticity due to Francfort and Marigo [3]. The definition of this space is quite natural (when one obviously knows the energies introduced in [3]), but somewhat technical, and involves bounds on the derivatives in *all* directions of the space. It is known that for spaces of type "*BD*" (Bounded Deformation [5, 4]), one can characterize the membership of a function in the space by controlling its variation in a finite number of directions (d principal directions and $d-1$ directions combining the previous ones, in dimension $d \geq 2$, *cf* [1]). In this talk, we will try to explain how we demonstrate a new characterization of *GBD* based on the control of a finite number of directions. This is collaborative work with Vito Crismale, from the University of Rome La Sapienza [2].

References

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CEREMADE, CNRS & Univ. Paris-Dauphine - PSL, France, email: chambolle@ceremade.dauphine.fr.

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