

- PEDRO PINTO, *Proof mining with the bounded functional interpretation*.
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In the context of the proof mining research program [1][2], the standard tool guiding the extraction of new information from noneffective mathematical proofs is Ulrich Kohlenbach's monotone functional interpretation. In 2005, a different interpretation was introduced by Fernando Ferreira and Paulo Oliva, the bounded functional interpretation [3]. We will look at some of the first applications of this functional interpretation to the proof mining of concrete results. In [4], we explained how certain sequential weak compactness arguments can be eliminated from proof mining and used this idea to obtain a quantitative version of Bauschke's theorem from [5]. Bounds on the metastability (in the sense of Terence Tao) for variants of the proximal point algorithm were obtained in [6][7][8]. This is partly joint work with Bruno Dinis, Fernando Ferreira and Laurențiu Leuştean.

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