Regularity of functions: Genericity and multifractal analysis
Erratum

October 22, 2014

This list of mistakes does not pretend to be exhaustive; it only contains the mistakes I have spotted until now.

- Lemma 2.3.11. (page 24) can be simply written

  The functions e_α, $\alpha \in \mathbb{R}$, are linearly independant.

- In the proof of Proposition 2.3.12. (page 25), the point x_0 is chosen in $\mathbb{R}$.
- Page 35, the definition of the relation $\lhd$ is not correct: the correct one is given in Definition 3.2.17. (page 41).
- In Definition 3.2.1. (page 36), the relation $M_k^2 \leq M_{k-1}M_{k+1}$ must hold for every $k \in \mathbb{N}$.
- Remark 3.2.15. (page 40) seems to be incorrect. But up to now, I do not have any counterexample in the log-convex case.
- Proposition 3.3.9 (page 47) was proved in 1991 by Schmets and Valdivia (and not in 1999).
- In Definition 4.2.1. (page 69), the s-dimensional Hausdorff measure can be defined for every $s \geq 0$. Then, in Definition 4.2.3. (page 70), the Hausdorff dimension of a subset B of $\mathbb{R}^n$ is defined by

  $$\dim_{\mathcal{H}}(B) = \sup\{s \geq 0 : H^s(B) = +\infty\}.$$

- Page 82, we have $\eta_f(p) = \widetilde{\eta}_f(p)$ is $p > p_c$ (and not if $p < p_c$).
- In Lemma 5.5.1. (page 113), one can assume that $\widetilde{\rho}_{\vec{c}}$ takes the value $-\infty$ outside of a compact set of $[0, +\infty)$.
- The space Ω should be replaced by the space C^0 in
  - Remark 6.4.3. (page 126), item 2.
  - Proposition 6.4.7. (pages 127-128) and in its proof.