

# Errata - Introduction to Online Convex Optimization

Elad Hazan

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- **found by Zhize Li, section 8.4:** Algorithm 25 needs to be initialized by a point of full support, for the relative entropy (and hence regret bound) to be finite. Changed to start with uniform distribution.
- **found by Zhize Li, section 7.3.1:** The norm of  $\|\mathbf{x}\|$  should be  $\sqrt{k}$  rather than  $k$ .
- **found by Naman Agarwal, lemma 6.2:** Replace  $\hat{\ell}_t(i_t)$  with  $\hat{\ell}_t(\mathbf{x}_t)$ .
- **found by Nikhil Bansal, Section 6.5:** In proof of Theorem 6.9, Theorem 5.1 cannot be used directly, since the  $\|\cdot\|_t$  norm is not shown to be the  $\|\cdot\|_{\mathbf{x}_t}$  norm. Correction is to use Lemma 5.2 instead, and derive the RFTL bound, using Lemma 6.8 to get the local norm.