Erratum: Many-body localization and thermalization in disordered Hubbard chains **[Phys. Rev. A **92**, 041601(R) (2015)]**

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The normalization of the results for the Aubry-André model reported in the Fig. 1(e) was incorrect. The corrected figure is enclosed. This does not affect any of the conclusions in the paper, except that $\Delta_c < W_c$ and not much smaller as originally stated.

FIG. 1. (Color online) (a)–(d) Averaged ratio of adjacent energy gaps as a function of the disorder strength for four values of U and two lattice sizes. The average $\bar{r}$ was computed over the central half of the spectrum. The disordered averaged results $\langle \bar{r} \rangle_{\text{dis}}$ for $L = 10$ were obtained by averaging over 1200 disorder realizations and the ones for $L = 12$ over 20–200 disorder realizations (error bars report the standard deviation). In (a) we show results for $N_\uparrow = N_\downarrow \pm 1$ when $L = 10$. They make apparent that both sectors behave qualitative (and quantitatively) similarly even for the largest values of $h_b = \mu_b$ used. The crossing point between curves for different lattice sizes provides an estimate of the critical disorder W_c for the ergodic to MBL transition. (e) Estimated W_c and Δ_c as a function of U (error bars report an interval of confidence based on the closeness of the results about W_c).