



Extended Data Figure 1 | Nonlinear response versus depth of the short lattice along y . Slope of the nonlinear response at $\varphi_y^{(0)} = 0.500(5)\pi$ and $\theta = 0.54(3)$ mrad as a function of $V_{s,y}$, with all other lattice parameters as in Figs 3 and 4. $J_y^{(0)} = J_y(\varphi_y^{(0)}) + \delta J_y(\varphi_y^{(0)})/2$ with $\varphi_y^{(0)} = \pi/2$ is the maximum intra-double-well tunnelling rate along y , which is calculated from the corresponding lattice depth. The solid line indicates the theoretically expected slope and the error bars show the fit error for the slope. The dashed line at $V_{s,y} = 6.25 E_{r,s}$ marks the point at which a topological transition occurs in the first excited subband along y , indicating the transition between the Landau regime for $V_{s,y} < 6.25 E_{r,s}$ and the Hofstadter regime for $V_{s,y} > 6.25 E_{r,s}$.