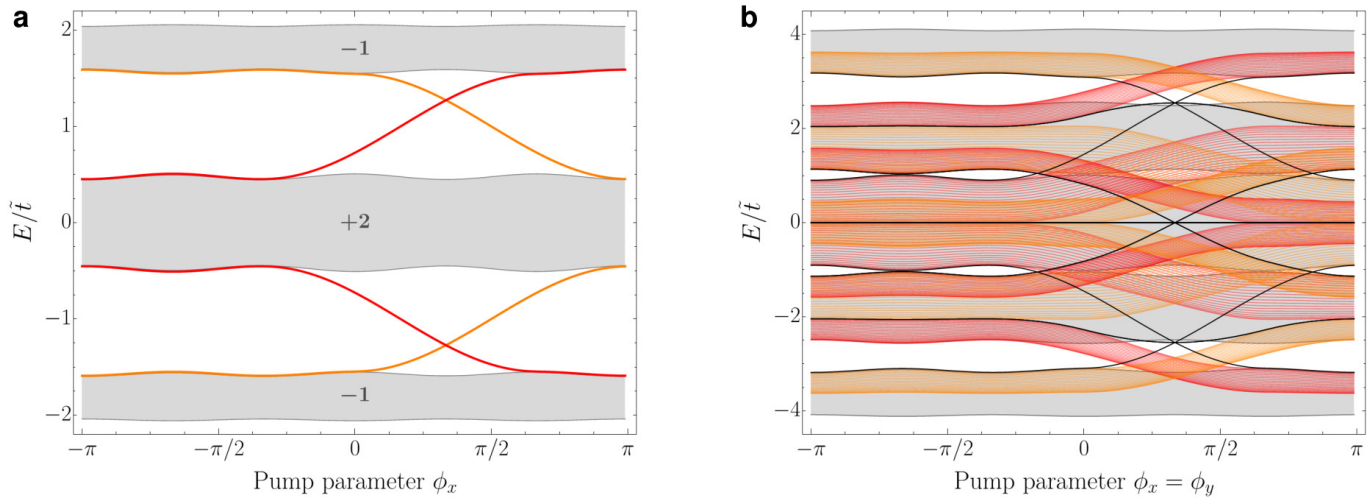

Extended Data Figure 2 | Nearest-neighbour band structure obtained from two decoupled models. See equation (2). **a**, Finite-sample band structure (energy E versus pump parameter) for a single Harper model aligned along the x direction. Boundary modes highlighted in orange (red) are localized on the left (right) end of the 1D sample. The first Chern number associated with each bulk band is also shown. **b**, Band structure for the fully separable 2D pump taken along the path $\phi_x = \phi_y$ for a system that decomposes into two independent Harper models. Each band in **b** is obtained by summing a pair of bands from **a**. The resulting bands can be classified by the types of state that appear in the sum: bulk–bulk (2D bulk), bulk–boundary (2D edge) or boundary–boundary (2D corner). These types are respectively coloured grey, red or orange, and black. As a function of ϕ_i, the edge modes form 'dispersive' bands that thread through the 2D bulk gaps. The corner modes thread between the edge bands and are therefore forced to cross 2D bulk bands along their ϕ_i trajectory.