



Figure 1: Illustration of the proof of Proposition ??: Any ball of radius  $r < \lfloor n/2 \rfloor$  in graph-distance (indicated by the dotted rectangle) around any vertex in  $G_{k,n}$  is isomorphic to the respective ball around 0 in  $G_{k,\infty}$ . On the other hand, for given  $r \geq 1$  we can choose  $n \geq \lceil 2r \rceil$  so that each ball of radius  $r$  in  $G_{k,n}$  is isomorphic to the respective ball around 0 in  $G_{k,\infty}$ .