



**S4 Fig. Simultaneous effect of  $\alpha$ ,  $\beta$  and  $r_0$  in network features.**

**A)** Global efficiency  $E^w$  (integration) and modularity  $Q^w$  (segregation) of the graphs derived from the sFCs of the BOLD-like signals. **B)** Transitions in the direction of  $\alpha$  axis, for a fixed  $r_0 = 0.5 \text{ mV}^{-1}$ . **C)** Transitions in the direction of  $r_0$  axis, for a fixed  $\alpha = 0.5$ . Dashed lines represent critical transitions. Both coupling parameters change in parallel following the relationship  $\beta = 0.5\alpha$ .