

Abstract Submitted
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Turing instabilities on curved surfaces with applications to postsynaptic domain formation CHRISTOPH HASELWANDTER, MIT, MARTIN M. MÜLLER, ENS Paris, JEMAL GUVEN, UNAM Mexico, MEHRAN KARDAR, MIT, ROYA ZANDI, UC Riverside — Postsynaptic receptor molecules are one of the key regulators of signal transmission across synapses. Receptors mostly populate postsynaptic domains, which also comprise stabilizing scaffold molecules. The formation of receptor-scaffold domains can be understood as a Turing instability arising from the interactions between receptors and scaffolds. The curvature of the membrane modifies the developing patterns which will be explored using analytical and numerical methods.

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