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Nonequilibrium instabilities of membranes with multiple-state active proteins[1] HSUAN-YI CHEN, Department of Physics and Institute of Biophysics, National Central University, Jhongli, Taiwan, ALEXANDER MIKHAILOV, Abteilung Physikalische Chemie, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin, Germany — We present a theoretical model for the dynamics of membranes containing active proteins that have several conformational states. The proteinss are active because their conformational transition rates depend on the strength of external energy source that drives the system out of equilibrium. We show that there exist several types of nonequilibrium phase transitions for a membrane with proteins that have typical transition rates and in-plane diffusion constant.

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Hsuan-Yi Chen
Dept of Physics and Institute of Biophysics, National Central University

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