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# "Segregation pattern in a reaction-diffusion model of asymmetric cell division"

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We deal with a mathematical model describing polarity in the asymmetric cell division of C. elegans embryo. In the maintenance phase of asymmet- ric cell division anterior PAR protein (aPAR) and posterior PAR protein (pPAR) are exclusively formed and a segregation pattern is created for the polarizations of aPAR and pPAR. Seirin-Lee and Shibata (2015) proposed a 4-component reaction-diffusion system with mass conservation as a model to describe the segregation pattern. Later, some gradient-like dynamics and variational structure in a slightly modied model system were revealed by Morita and Serin-Lee (2021). In this talk we review their work and report a recent progress.