Seventh Workshop Dynamical Systems Applied
to Biology and Natural Sciences DSABNS 2016
Évora, Portugal, February 2-5, 2016

CROSS-DIFFUSION-INDUCED PATTERNS FOR REACTION DIFFUSION SYSTEMS

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ABSTRACT

Pattern formation generated by the reaction-diffusion system with cross-diffusion on evolving domains and surfaces will be presented. To demonstrate the role of cross-diffusion to the theory of pattern formation, patterns with model kinetic parameter values that belong only to the cross-diffusion parameter space were computed using the surface finite element method; these do not belong to the standard parameter space for classical reaction-diffusion systems.

References

[1] A. Madzvamuse, H. S. and Barreira, R. (2014) *Exhibiting cross-diffusion-induced patterns for reaction-diffusion systems on evolving domains and surfaces*, J. Math. Biol., Volume **(90)** .

 ISBN: 978-989-98750-2-9