*Numerical simulation to capture the pattern formation*

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This work deals to capture the different types of patterns of nonlinear time dependent coupled reaction diffusion models. To accomplish this work, a new differential quadrature (DQ) algorithm is developed with the help of modified trigonometric cubic B-spline functions. The stability part of the developed algorithm is studied by matrix stability analysis method. In the experimental part, different types of patterns of Gray–Scott, Schnakenberg, Isothermal Chemical and Brusselator Models are captured which are similar to the existing patterns of the models.