

## **BRUSSELATOR MODEL**

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**Abstract.** In this project, systems of linear and nonlinear partial differential equations and the reaction-diffusion Brusselator model are handled by applying the decomposition method. The advantage of this work is twofold. First, the decomposition method reduces the computational work. Secondly, in comparison with existing techniques, the decomposition method is an improvement with regard to its accuracy and rapid convergence. The decomposition method has the advantage of being more concise for analytical and numerical purposes.