

**Szymon Cygan**  
Instytut Matematyczny  
Uniwersytet Wrocławski

Title: A nonlocal Toy model of pattern formation

Abstract: We study a pattern formation model described by certain nonlocal evolution equation. This evolution equation is obtained by a modification of a model introduced by Shigeru Kondo to explain colour patterns on a skin of the guppy fish. We prove the existence of stationary solutions in the linear and nonlinear cases either using the bifurcation theory or the Schauder fixed point theorem. We also present numerical studies of this model and show that it exhibits patterns similar to those obtained by Kondo.