

# Oberseminar Nichtlineare Differentialgleichungen

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## Shifting clusters in social dynamics: a nonlocal approach

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Abstract: The bounded confidence model is well-known for its dynamics of party formation within the sphere of social dynamics. We investigate the addition of bias terms, modeling shifts in opinions, and the resulting dynamics including coherent movement of parties. We analyze this movement using a novel, nonlocal approach for the study of the resulting forward-backward delay equations. Different from existing methods, we compute Taylor expansions in function space. This approach leads to an algebraically simple computation of the reduced flow on a center manifold, allowing for proof of coherent small-amplitude movement.

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