

The Emergence of Leadership in Social Networks

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(Submitted on 2 Jun 2011 (v1), last revised 7 Nov 2011 (this version, v2))

We study a networked version of the minority game in which agents can choose to follow the choices made by a neighbouring agent in a social network. We show that for a wide variety of networks a leadership structure always emerges, with most agents following the choice made by a few agents. We find a suitable parameterisation which highlights the universal aspects of the behaviour and which also indicates where results depend on the type of social network.

Comments: 22 pages (as in Physica A but with a few extra references to supplementary material) plus 11 pages of supplementary material not in Physica A version

Subjects: **Physics and Society (physics.soc-ph)**; Social and Information Networks (cs.SI); General Finance (q-fin.GN)

Journal reference: Physica A 391 (2012) 1434-1444

DOI: [10.1016/j.physa.2011.11.011](https://doi.org/10.1016/j.physa.2011.11.011)

Report number: Imperial/TP/11/TSE/3

Cite as: [arXiv:1106.0296](https://arxiv.org/abs/1106.0296) [physics.soc-ph]

(or [arXiv:1106.0296v2](https://arxiv.org/abs/1106.0296v2) [physics.soc-ph] for this version)

Submission history

From: Tim Evans [[view email](#)]

[v1] Thu, 2 Jun 2011 12:39:13 GMT (345kb)

[v2] Mon, 7 Nov 2011 15:50:47 GMT (346kb)

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