Cornell University
Library

We gratefully acknowledge supp
the Simons Fo
and member ins

Physics > Physics and Society

Statistical anomalies in 2011-2012 Russian elections revealed by 2D correlation analysis

Dmitry Kobak, Sergey Shpilkin, Maxim S. Pshenichnikov

(Submitted on 3 May 2012 (v1), last revised 17 May 2012 (this version, v2))

Here we perform a statistical analysis of the official data from recent Russian parliamentary and presidential elections (held on December 4th, 2011 and March 4th, 2012, respectively). A number of anomalies are identified that persistently skew the results in favour of the pro-government party, United Russia (UR), and its leader Vladimir Putin. The main irregularities are: (i) remarkably high correlation between turnout and voting results; (ii) a large number of polling stations where the UR/Putin results are given by a round number of percent; (iii) constituencies showing improbably low or (iv) anomalously high dispersion of results across polling stations; (v) substantial difference between results at paper-based and electronic polling stations. These anomalies, albeit less prominent in the presidential elections, hardly conform to the assumptions of fair and free voting. The approaches proposed here can be readily extended to quantify fingerprints of electoral fraud in any other problematic elections.

Comments:	12 pages, 5 figures; Methods slightly expanded
Subjects:	**Physics and Society (physics.soc-ph)**; Applications (stat.AP)
Cite as:	**arXiv:1205.0741 [physics.soc-ph]**
	(or **arXiv:1205.0741v2 [physics.soc-ph]** for this version)

Submission history

From: Dmitry Kobak [view email]
[v1] Thu, 3 May 2012 15:46:04 GMT (1306kb,D)
[v2] Thu, 17 May 2012 09:38:11 GMT (1306kb,D)

Which authors of this paper are endorsers?

Link back to to: arXiv, form interface, contact.