Stationary states of opinion diffusion
Project for the exam: AMS (DSE)

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Introduction

Ising model

Ising model

- Historical model: an array of spins (e.g. atoms that can take states $\pm$

Bibliography I

https://cneos.jpl.nasa.gov/about/neo_groups.html.

https://www.kaggle.com/shrutimehta/nasa-asteroids-classification.

https://cneos.jpl.nasa.gov/.

https://cran.r-project.org/web/packages/glasso/glasso.pdf.

https://www.amacad.org/publication/physics-reality.

https://towardsdatascience.com/understanding-auc-roc-curve-68b2303cc9c5.

Gabriel CG de Abreu, Rodrigo Labouriau, and David Edwards. "High-dimensional graphical model search with graphd R package". In: *arXiv preprint arXiv:0909.1234* (2009).

Bibliography II

📄 Evgenia Dimitriadou et al. "Misc functions of the Department of Statistics (e1071), TU Wien". In: *R package* 1 (2008), pp. 5–24.

📄 Jonas Haslbeck and Lourens J Waldorp. "mgm: Estimating time-varying mixed graphical models in high-dimensional data". In: *arXiv preprint arXiv:1510.06871* (2015).

📄 Søren Højsgaard, David Edwards, and Steffen Lauritzen. *Graphical Models with R*. ISBN 978-1-4614-2298-3. New York: Springer, 2012. DOI: 10.1007/978-1-4614-2299-0.

📄 Gilles Kratzer and Reinhard Furrer. "varrank: an R package for variable ranking based on mutual information with applications to observed systemic datasets". In: *arXiv preprint arXiv:1804.07134* (2018).

Bibliography III

📄 Sébastien Lê, Julie Josse, and François Husson. "FactoMineR: an R package for multivariate analysis". In: *Journal of statistical software* 25.1 (2008), pp. 1–18.

📄 Andy Liaw and Matthew Wiener. "Classification and Regression by randomForest". In: *R News* 2.3 (2002), pp. 18–22. URL: https://CRAN.R-project.org/doc/Rnews/.

📄 Carl D Murray and Stanley F Dermott. *Solar system dynamics*. Cambridge university press, 1999.

📄 R Core Team. *R: A Language and Environment for Statistical Computing*. ISBN 3-900051-07-0. R Foundation for Statistical Computing. Vienna, Austria, 2013. URL: http://www.R-project.org/.

📄 Alfred Tarski, Andrzej Mostowski, and Raphael Mitchel Robinson. *Undecidable theories*. Vol. 13. Elsevier, 1953.

Bibliography IV

📄 W. N. Venables and B. D. Ripley. *Modern Applied Statistics with S*. Fourth. ISBN 0-387-95457-0. New York: Springer, 2002. URL: https://www.stats.ox.ac.uk/pub/MASS4/.

ROC and ϕ factor