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[[PackageName]]: Quasirandomness Improves Visualization of Dense Data [[work]]

Scott Sherrill-Mix
University of Pennsylvania

Erik L. Clarke
University of Pennsylvania

Abstract

Here should be the abstract.

Keywords: violin plot, distribution, kernel density, ggplot, R.

1. Introduction

The display of univariate data is a [[busy field]]. Display choices include using plots such as histograms, stem-and-leaf plots, boxplots, densities. For small- to moderately-sized datasets, [[need to reference graphpad]]. [Wilkinson \(1999\)](#) symmetric or stacked dot plots (histogram-like). Violin plots ([Hintze and Nelson 1998](#)). bean plots ([Kampstra 2008](#)).

Variable width square root of group size scaled width with many variability measures, e.g. standard error ([McGill, Tukey, and Larsen 1978](#)).

2. Comparisons of visualizations

beeswarm (multiple options), violin, boxplot, jitter on various data

3. Examples of usage

some nice examples of just our own stuff

4. Conclusions

5. Acknowledgements

References

- Hintze JL, Nelson RD (1998). “Violin plots: a box plot-density trace synergism.” *The American Statistician*, **52**(2), 181–184. doi:10.1080/00031305.1998.10480559.
- Kampstra P (2008). “Beanplot: A boxplot alternative for visual comparison of distributions.” *Journal of Statistical Software*, **28**(1), 1–9. URL <http://www.jstatsoft.org/v28/c01>.
- McGill R, Tukey JW, Larsen WA (1978). “Variations of box plots.” *The American Statistician*, **32**(1), 12–16. doi:10.2307/2683468.
- Wilkinson L (1999). “Dot plots.” *The American Statistician*, **53**(3), 276–281. doi:10.2307/2686111.

Affiliation:

Scott Sherrill-Mix
 Department of Microbiology
 Perelman School of Medicine
 University of Pennsylvania
 Philadelphia, Pennsylvania, USA
 E-mail: shescott@mail.med.upenn.edu