

DZstats

Saylor and Sundell (2016)

DZstats is a program used for quantitative comparison of detrital zircon U-Pb age distributions developed by Joel Saylor and Kurt Sundell at the University of Houston Department of Earth and Atmospheric Sciences. DZstats implements Cross-correlation (Saylor et al., 2012), Similarity (Gehrels, 2000), and Likeness (Satkoski et al., 2013) for probability density plots (PDPs) or kernel density estimates (KDEs); and the Kolmogorov-Smirnov (KS) Test (Massey, 1951) and Kuiper Test (Kuiper, 1960) for cumulative distribution functions.

For a detailed description of the methods implemented in DZstats, and for proper citation, please reference the following paper:

Saylor, Joel E., and Kurt E. Sundell. "Quantifying comparison of large detrital geochronology data sets." Geosphere 12, no. 1 (2016): 203-220.

Note that this program requires the MATLAB Runtime. The Runtime is free and only needs to be installed once. Following installation and upon running DZstats, the Runtime will automatically be accessed; there is no need to open the Runtime directly. If you have comments/questions about any of the files, please contact Joel Saylor (joelsaylor@gmail.com) or Kurt Sundell (kurtsundell@gmail.com).

Following are links to the latest version of DZstats, example data sets, user manual, and a PDF of Saylor and Sundell (2016), and MATLAB Runtime:

[DZstats for Windows and macOS, example data, user manual, publication](#)

[MATLAB Runtime Compiler for Windows \(free, and required to run DZstats\)](#)

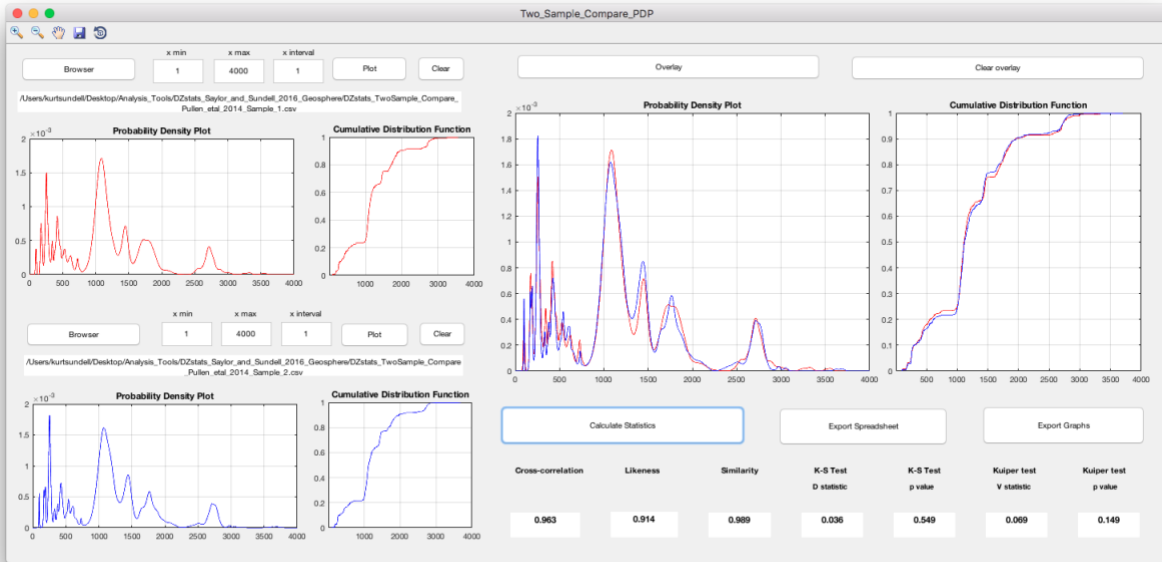
[MATLAB Runtime Compiler for macOS \(free, and required to run DZstats\)](#)

Examples

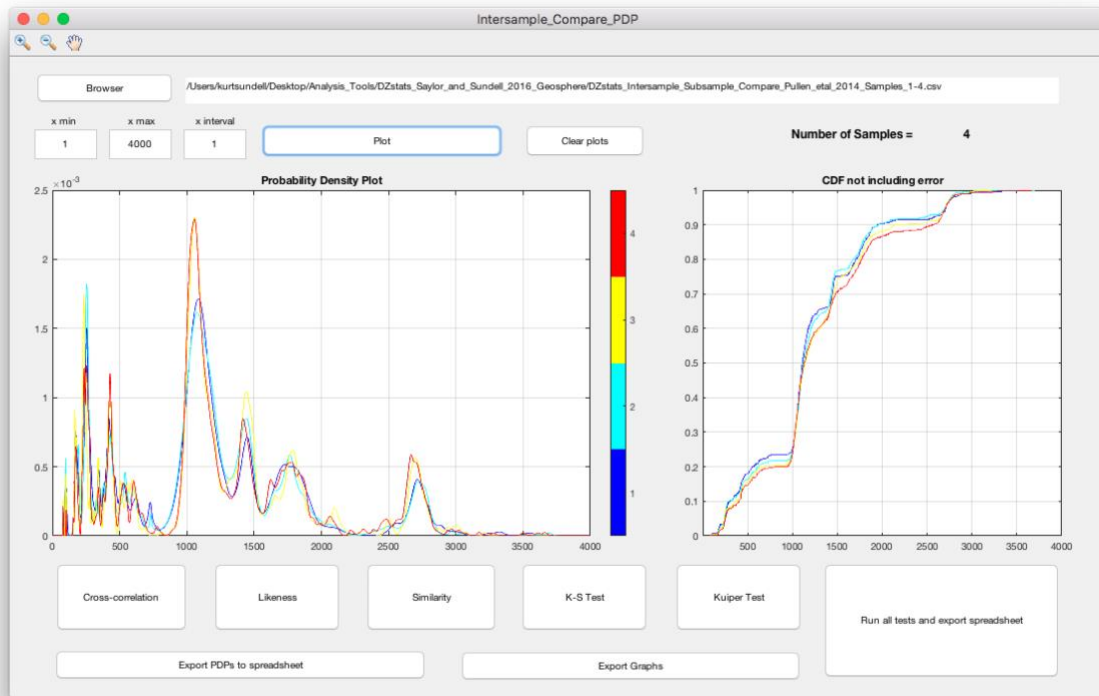
Home screen



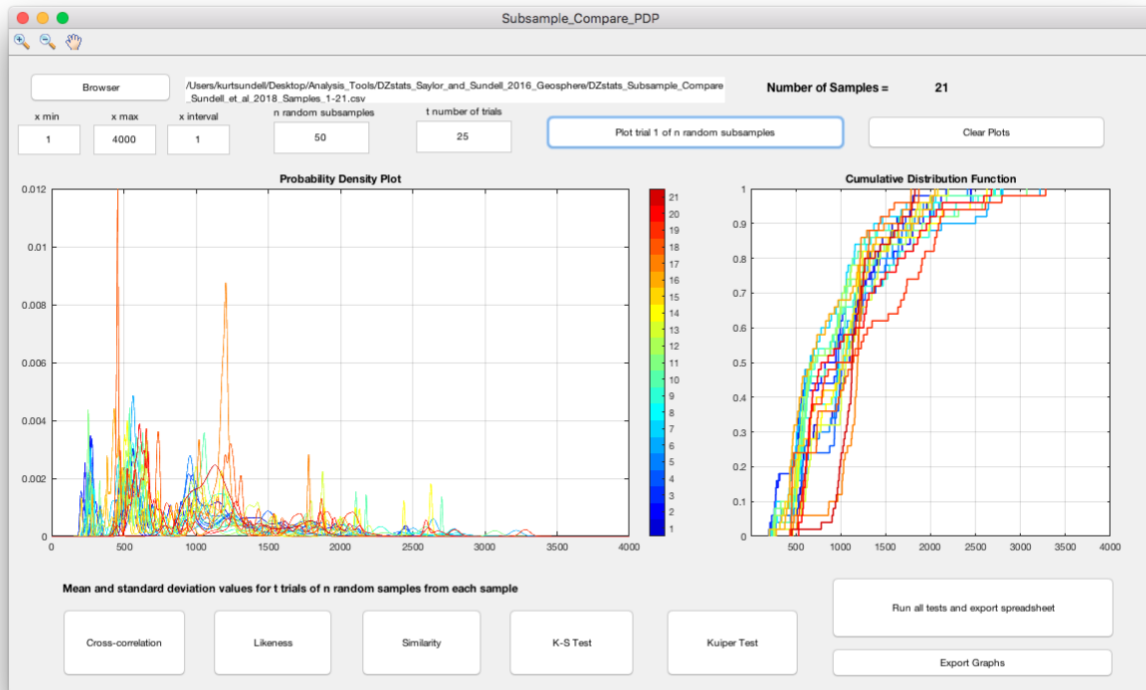
Two Sample Comparison of two age distributions from Pullen et al. (2014)



Intersample Comparison of four age distributions from Pullen et al. (2014)



Subsample Comparison of 21 age distributions from Sundell et al. (2018)



References

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- Saylor, Joel E., and Kurt E. Sundell. "Quantifying comparison of large detrital geochronology data sets." *Geosphere* 12, no. 1 (2016): 203-220.
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