Python and Pandas for Papyrology?
Towards a Stylometry of Family Letters from Graeco-Roman Egypt
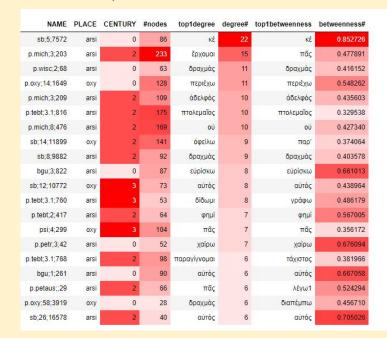## MA. Audric Wannaz

HYPOTHESIS

Today's most popular informatic language **Python** can greatly benefit both the **research** and the **teaching** of **papyrology**. It has many advantages:

- Free and open-source
- Well-documented and high-level
- Over 150'00 custom libraries
- Enables nonlinear sandbox workflow, especially in Jupyter Notebook

CASE STUDY

A **Network Analysis** (following CZACHESZ 2016) of **Greek Family Letter** with three libraries: **CLTK**, **Networkx** and **Pandas**

NAME	PLACE	CENTURY	#nodes	top1degree	degree#	top1betweenness	betweenness#
sb;5;7572	arsi	0	86	κὲ	22	κὲ	0.852726
p.mich;3;203	arsi	2	233	ἔρχομαι	15	πᾶς	0.477891
p.wisc;2;68	arsi	0	63	δραχμάς	11	δραχμάς	0.416152
p.oxy;14;1649	oxy	0	128	περιέχω	11	περιέχω	0.548262
p.mich;3;209	arsi	2	109	ἀδελφός	10	ἀδελφός	0.435603
p.tebt;3.1;816	arsi	2	175	πτολεμαῖος	10	πτολεμαῖος	0.329538
p.mich;8;476	arsi	2	169	οὐ	10	οὐ	0.427340
sb;14;11899	oxy	2	141	ὀφείλω	9	παρ'	0.374064
sb;8;9882	arsi	2	92	δραχμάς	9	δραχμάς	0.403578
bgu;3;822	arsi	0	87	εὑρίσκω	8	εὑρίσκω	0.661013
sb;12;10772	oxy	3	73	αὐτός	8	αὐτός	0.438964
p.tebt;3.1;760	arsi	3	53	δίδωμι	8	γράφω	0.486179
p.tebt;2;417	arsi	2	64	φημί	7	φημί	0.567005
psi;4;299	oxy	3	104	πᾶς	7	πᾶς	0.356172
p.petr;3;42	arsi	0	52	χαίρω	7	χαίρω	0.676094
p.tebt;3.1;768	arsi	2	98	παραγίγνομαι	6	τάχιστος	0.381966
bgu;1;261	arsi	0	90	αὐτός	6	αὐτός	0.667058
p.petaus;;29	arsi	2	66	λέγω1	6	λέγω1	0.524294
p.oxy;58;3919	oxy	0	28	δραχμάς	6	διαπέμπω	0.456710
sb;26;16578	arsi	2	40	αὐτός	6	αὐτός	0.705026

Want more? Scan the QR code below or visit
https://audricwannaz.github.io/

RELEVANCE

- Taps the potential of Epidoc XML
- Portable to Epigraphy and to other disciplines in the Humanities

LITERATURE

István CZACHESZ: "Network Analysis of Biblical Texts." *JCH* 3.1-2 (2016), 43-46.

Holger ESSLER and Jeremi K. OCHAB: "Stylometry of Literary Papyri" in: *Proceedings of the 3rd International Conference on Digital Access to Textual Cultural Heritage (DATeCH2019), May 8–10, 2019,* Brussels 2019.