



## *Supplement of*

# **GC Insights: Breaking the silos – leveraging natural language processing (NLP) to encourage interdisciplinary interaction at the European Geosciences Union (EGU)**

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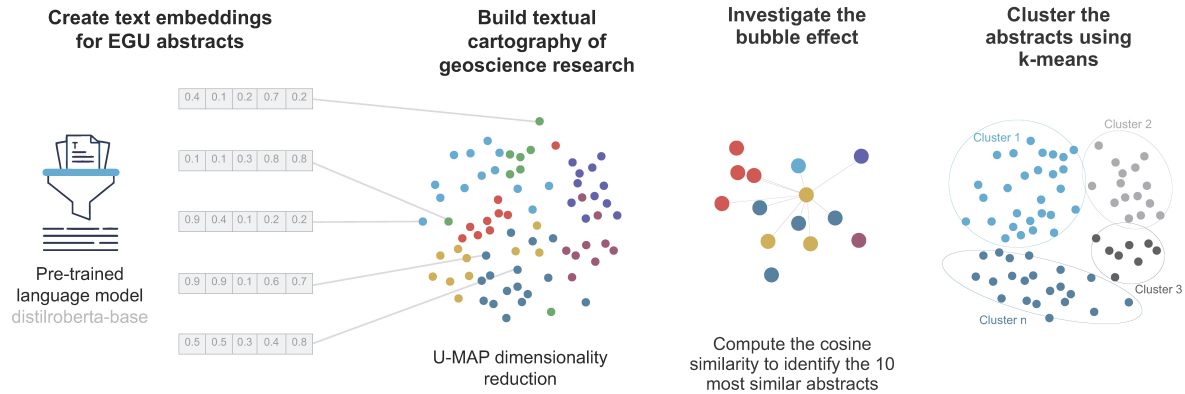


Fig. S1: Research approach which consists of 5 steps, including: (1) collecting abstracts from EGU, (2) computing similarities between abstracts, (3) visualizing the abstracts in a 2-dimensional space, (4) running a simulation to estimate the hypothesized filter effect, and (5) comparing the coherence of divisions created through clustering to the existing division structures.

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Application of a fault identification and fault sealing evaluation method in production and development stage in 2B area of Bohai Bay Basin

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Rank	Similarity score	Abstract	Division	EGU LINK
1	1.000000	Chang, C. and Zhang, X.: Application of a fault identification and fault sealing evaluation method in production and development stage in 2B area of Bohai Bay Basin, EGU General Assembly 2024, Vienna, Austria, 14-19 Apr 2024, EGU24-1, <a href="https://doi.org/10.5194/egusphere-egu24-1">https://doi.org/10.5194/egusphere-egu24-1</a> , 2024.	EFERE	EGU LINK
2	0.993855	Vico, G., Taccaro, R. C., Maresio, F. E., Tiberti, M. M., and Batti, R.: Best practices for using and reporting subsurface geological/geophysical data in defining and documenting seismogenic faults, EGU General Assembly 2024, Vienna, Austria, 14-19 Apr 2024, EGU24-8486, <a href="https://doi.org/10.5194/egusphere-egu24-8486">https://doi.org/10.5194/egusphere-egu24-8486</a> , 2024.	ESSUSP	EGU LINK
3	0.991129	Affonso, R., Elsworth, D., and Marone, C.: Fault drainage rate and frictional stability in response to shearing rate steps in natural gouge, EGU General Assembly 2024, Vienna, Austria, 14-19 Apr 2024, EGU24-0384, <a href="https://doi.org/10.5194/egusphere-egu24-0384">https://doi.org/10.5194/egusphere-egu24-0384</a> , 2024.	EMRP/EMRP	EGU LINK
4	0.979159	Avalos, S., Comella, C., Valle, G., Pizzi, G., Spagnuolo, E., and Cecce, M.: Fault core structure effects fault slip during fluid injection: Insights from laboratory friction experiments, EGU General Assembly 2024, Vienna, Austria, 14-19 Apr 2024, EGU24-8226, <a href="https://doi.org/10.5194/egusphere-egu24-8226">https://doi.org/10.5194/egusphere-egu24-8226</a> , 2024.	EFERE	EGU LINK
5	0.970864	Zhang, X. and Jin, Q.: The influence of faults on the development of carbonate sand reservoir in main area of lake oilfield and its significance in petroleum geology, EGU General Assembly 2024, Vienna, Austria, 14-19 Apr 2024, EGU24-67, <a href="https://doi.org/10.5194/egusphere-egu24-67">https://doi.org/10.5194/egusphere-egu24-67</a> , 2024.	QAGM	EGU LINK
6	0.968667	Milodon, Z., Andrews, B., Rodriguez Picada, C., and Dietrich, M.: Insights into fault behaviour and seismic hazard from studying active and inactive faults over a range of timescales, EGU General Assembly 2024, Vienna, Austria, 14-19 Apr 2024, EGU24-17839, <a href="https://doi.org/10.5194/egusphere-egu24-17839">https://doi.org/10.5194/egusphere-egu24-17839</a> , 2024.	TSTS	EGU LINK
7	0.966984	Rigione, N., Mecklenburgh, J., and Rutter, E.: Frictional Response of Clay-rich Sandstone to Pore-Pressure Oscillation Throughout Interseismic Periods, EGU General Assembly 2024, Vienna, Austria, 14-19 Apr 2024, EGU24-18103, <a href="https://doi.org/10.5194/egusphere-egu24-18103">https://doi.org/10.5194/egusphere-egu24-18103</a> , 2024.	EMRP/EMRP	EGU LINK
8	0.966148	Baton, D., Donnell-Gibson, Z., Hosseini, N., Zorabadi, D., and Clarkson, C.: Relationship between sealing faults, pressure domains and fluid-induced seismicity, EGU General Assembly 2024, Vienna, Austria, 14-19 Apr 2024, EGU24-12966, <a href="https://doi.org/10.5194/egusphere-egu24-12966">https://doi.org/10.5194/egusphere-egu24-12966</a> , 2024.	EFERE	EGU LINK
9	0.965702	Yang, X., Tao, W., Lu, R., and Zhang, W.: Three-Dimensional Fault Slip Risk Analysis in a Shale Gas Development Area: A Case Study of the Lushan Shale Gas Field, Sichuan Basin, China, EGU General Assembly 2024, Vienna, Austria, 14-19 Apr 2024, EGU24-10294, <a href="https://doi.org/10.5194/egusphere-egu24-10294">https://doi.org/10.5194/egusphere-egu24-10294</a> , 2024.	EFERE	EGU LINK
10	0.9648791	Köster, G., Çiftçi, G., Güçlü, S., Okay, G., Güçlü, S., Hasoğlu, A., Güçlü, T., Demirezen, Z., and Çetinköylü, M.: Revealing the continuity of offshore faults in the Sefethisar (Izmir) Geothermal Area by modeling with Marine Seismic and Field Geology, EGU General Assembly 2024, Vienna, Austria, 14-19 Apr 2024, EGU24-15148, <a href="https://doi.org/10.5194/egusphere-egu24-15148">https://doi.org/10.5194/egusphere-egu24-15148</a> , 2024.	ESSUSP	EGU LINK
11	0.962084	Vico, G.: High-resolution multidisciplinary studies of fault zone architecture: Insights into deformation histories, fault mechanics, fluid circulation, weathering and... EGU General Assembly 2024, Vienna, Austria, 14-19 Apr 2024, EGU24-4876, <a href="https://doi.org/10.5194/egusphere-egu24-4876">https://doi.org/10.5194/egusphere-egu24-4876</a> , 2024.	TSTS	EGU LINK

Fig. S2: Screenshot of a web application for EGU GA participants to explore relevant abstracts. Participants can search for a particular submission and receive a list of the most similar abstracts. Additionally, an interactive map can be displayed similar to Fig. 1A.