STACK publications

This document contains publications relating to the STACK computer aided assessment system.
For more information about STACK please see https://stack-assessment.org/
The original BiBTeX entries are available from:

https://github.com/maths/moodle-qtype_stack/tree/master/doc/content/stack.bib

1 Suggestions of where to start

Kinnear, G., Jones, I., Sangwin, C., Alarfaj, M., Davies, B., Fearn, S., Foster, C., Heck, A., Henderson, K., Hunt, T., Iannone, P., Kontorovich, I., Larson, N., Lowe, T., Meyer, J. C., O'Shea, A., Rowlett, P., Sikurajapathi, I., & Wong, T. (2024). A collaboratively-derived research agenda for E-assessment in undergraduate mathematics. *International Journal of Research in Undergraduate Mathematics Education*, *10*(1), 201–231. https://doi.org/10.1007/s40753-022-00189-6

O'Hagan, S., Sangwin, C. J., & Zerva, K. (2022). *A report on the use of the STACK service in Edinburgh, 2021–22* (tech. rep.). University of Edinburgh. Edinburgh, UK.

Sangwin, C. J. (2013). *Computer aided assessment of mathematics*. Oxford University Press.

Sangwin, C. J., & Bickerton, R. (2023). Practical online assessment of mathematical proof. *International Journal of Mathematical Education in Science and Technology*, *53*(10). https://doi.org/10.1080/0020739X.2021.1896813

Sangwin, C. J., & Jones, I. (2017). Asymmetry in student achievement on multiple choice and constructed response items in reversible mathematics processes. *Educational Studies in Mathematics*, *94*, 205–222. https://doi.org/10.1007/s10649-016-9725-4

2 Books

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3 Papers on specific issues

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Sangwin, C. J. (2019). Proof technology in mathematics research and teaching. Springer International.

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4 STACK and Examinations

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Sangwin, C. J. (2019). Developing and evaluating an online linear algebra examination for university mathematics. *Proceedings of CERME 11*, (TWG 21: Mssessment in Mathematics Education).

Sangwin, C. J., & Köcher, N. (2016). Automation of mathematics examinations. *Computers and Education*, *94*, 215–227. https://doi.org/10.1016/j.compedu.2015.11.014

5 Theses

Badger, M. (2013). *Problem-solving in undergraduate mathematics and computer aided assessment* (PhD). University of Birmingham.

Cerval-Peña, E. R. (2008). *Automated computer-aided formative assessment with ordinary differential equations* (Master's thesis). University of Birmingham.

Harjula, M. (2008). *Mathematics exercise system with automatic assessment* (Master's thesis). Helsinki University of Technology.

Majander, H. (2010). *Tietokoneavusteinen arviointi kurssilla diskreetin matematiikan perusteet* (Master's thesis). University of Helsinki.

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Tanskanen, H. (2010). *Dynaamista geometriaa moodle-ympäristöön - stack- ja jsxgraph-järjestelmien testaamista monimuotoisten kysymysten laatimiseksi* (Master's thesis). University of Eastern Finland.

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Erskine, G., & Mestel, B. (2018). Developing STACK practice questions for the Mathematics Masters Programme at the OU. *MSOR Connections*, *17*(1). https://doi.org/10.21100/msor.v17i1.896

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Kinnear, G., & Iannone, P. (2024). Students' views of e-assessment feedback in undergraduate mathematics. In T. Evans, O. Marmur, J. Hunter, G. Leach, & J. Jhagroo (Eds.), *Proceedings of the 47th Conference of the International Group for the Psychology of Mathematics Education* (pp. 137–144). PME. https://doi.org/10.5281/zenodo.15348008

Kinnear, G., Iannone, P., & Davies, B. (2023). Insights about functions from example-generation tasks: Combining e-assessment and written responses. In P. Drijvers, C. Csapodi, H. Palmér, K. Gosztonyi, & E. Kónya (Eds.), *Proceedings of the Thirteenth Congress of the European Society for Research in Mathematics Education (CERME13)* (pp. 2399–2406). Alfréd Rényi Institute of Mathematics and ERME. https://hal.science/hal-04406716

Kinnear, G., & Kontorovich, I. (2024). Using e-assessment for interactive example-generation tasks. In P. Iannone, F. Moons, C. Drüke-Noe, E. Geraniou, F. Morselli, K. Klingbeil, M. Veldhuis, & S. Olsher (Eds.), *Proceedings of FAME 1 – Feedback & Assessment in Mathematics Education (ETC 14)* (pp. 158–165). Utrecht University and ERME. https://doi.org/10.5281/zenodo.14231455

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7 Proceedings of the first STACK conference, 2018

For copies of the proceedings of the first STACK conference see https://zenodo.org/communities/stack

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Bach, S. (2019). *STACK-Fragen zur Unterstützung der Selbstlernphasen in einem Studienvorbereitungsangebot für beruflich Qualifizierte*. Zenodo. https://doi.org/10.5281/zenodo.2563803

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Fath, J., Hansen, P., Scheicher, C., & Umbach, T. (2019). E-homework with individual feedback for large lectures. *Contributions to the 1st International STACK conference 2018 in Fürth, Germany*. https://doi.org/10.5281/zenodo.2565860

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Klischat, C., Becker, P., & Vasko, M. (2019). STACK is more than Maths – Development of Online Problems for Mechanics and Electrotechnics. *Contributions to the 1st International STACK conference 2018 in Fürth, Germany*. https://doi.org/10.5281/zenodo.2577116

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Zerva, K. (2019). Developing STACK assessments in Edinburgh, 2017–2019. *Contributions to the 1st International STACK conference 2018 in Fürth, Germany*. https://doi.org/10.5281/zenodo.2585816

8 Selected publications from the fourth STACK conference, 2022

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Guido Pinkernell, G., Diego-Mantecon, J. M., Lavicza, Z., & Sangwin, C. (2023). Authomath: Combining the strengths of stack and geogebra for school and academic mathematics. *International Journal of Emerging Technologies in Learning*, *18*(3). https://doi.org/10.3991/ijet.v18i03.36535

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Zerva, K., & Sangwin, C. J. (2022). Rejuvenating the HELM workbooks as online STACK quizzes in 2020. *International Journal of Emerging Technologies in Learning (iJET)*, *17*, 69–88. https://doi.org/10.3991/ijet.v17i23.35923

9 Legacy reports about STACK use

O'Hagan, S., Sangwin, C. J., & Zerva, K. (2022). *A report on the use of the STACK service in Edinburgh, 2021–22* (tech. rep.). University of Edinburgh. Edinburgh, UK.

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