## STACK publications

This document contains a list of publications relating to the STACK computer aided assessment system. This document is a catalogue of all entries in the BiBTeX file currently available from

https://github.com/maths/moodle-qtype\_stack/tree/master/doc/content/stack.bib

For more information about STACK please see https://stack.maths.ed.ac.uk/demo

## References

- [1] M. Badger. *Problem-solving in undergraduate mathematics and computer aided assessment.* Phd, University of Birmingham, 2013.
- [2] M. Badger and C.J. Sangwin. My equations are the same as yours!: computer aided assessment using a Gröbner basis approach. In A. A. Juan, M. A. Huertas, and C. Steegmann, editors, *Teaching Mathematics Online: Emergent Technologies and Methodologies*, pages 259–273. IGI Global, 2011.
- [3] H. Barbas and T. Schramm. The Hamburg online math test MINTFIT for prospective students of STEM degree programmes. In *Proceedings of SEFI, Tampere, Finland*, 2016.
- [4] R. Bradford, J. H. Davenport, and C. J. Sangwin. A comparison of equality in computer algebra and correctness in mathematical pedagogy. In *Proceedings of Calculemus*, number 5625 in Lecture Notes in Artificial Intelligence, pages 75–89, 2009.
- [5] R. Bradford, J. H. Davenport, and C. J. Sangwin. A comparison of equality in computer algebra and correctness in mathematical pedagogy (ii). *The International Journal for Technology in Mathematics Education*, 17(2):93–98, 2010.
- [6] P. Butcher, C. . Sangwin, and T. Hunt. Embedding and enhancing eassessment in the leading open source VLE. In *Proceedings of the Higher Education Academy Conference*, *Birmingham*, 2013.
- [7] E. R. Cerval-Peña. Automated computer-aided formative assessment with ordinary differential equations. Master's thesis, University of Birmingham, 2008.
- [8] M. Harjula. Mathematics exercise system with automatic assessment. Master's thesis, Helsinki University of Technology, 2008.
- [9] G. Keady, G. Fitz-Gerald, G. Gamble, and C. Sangwin. Computer-aided assessment in mathematical sciences. In *UniServe Science Symposium*, *University of Sydney*, pages 69–73, 2006.
- [10] T. Lowe. e-Assessment using Symbolic Manipulation Tools. Technical report, Centre for Open Learning of Mathematics, Science, Computing and Technology, The Open University, 2010.
- [11] H. Majander. Tietokoneavusteinen arviointi kurssilla diskreetin matematiikan perusteet. Master's thesis, University of Helsinki, 2010.

- [12] H. Majander and A. Rasila. *Tutkimus suuntaamassa 2010-luvun matemaattisten aineiden opetusta*, chapter Experiences of continuous formative assessment in engineering mathematics, pages 197–214. Tampereen yliopistopaino Oy Juvenes Print, 2011.
- [13] Y. Nakamura. The STACK e-Learning and Assessment System for mathematics, science and engineering education through Moodle. Tokyo Denki University Press, 2010. (In Japanese).
- [14] Y. Nakamura, K. Fukazawa, and T. Takahara. Development of portable stack: Packaged math e-learning system. In *Proceedings of World Conference on E-Learning*, 2013.
- [15] Y. Nakamura, T. Nakahara, and M. Akiyama. Teaching of differential equations using mathematics e-learning system stack. In *Proceedings of the IADIS International Conference e-Learning*, 2010.
- [16] Y. Nakamura and T. Takahara. Development of a math input interface with flick operation for mobile devices. In 12th International Conference on Mobile Learning, 9–11 April, Vilamoura, Algarve, Portugal, 2016.
- [17] Y. Nakamura, T. Taniguchi, and T. Takahara. Item bank system for the mathematics e-learning system stack. *Research Journal of Mathematics and Technology*, 3(2):77–85, December 2014.
- [18] Y. Nakamura, T. Taniguchi, K. Yoshitomi, S. Shirai, Fukui T., and T. Nakahara. Stack project in japan; item bank system, math input interface and question specification. In *Proceedings of the 13th International Congress on Mathematical Education*, 2016. TSG-44.
- [19] R. C. Paiva, M. S. Ferreira, A. G. Mendes, and A. M. J. Eusébio. Interactive and multimedia contents associated with a system for computer-aided assessment. *Journal of Educational Computing Research*, 52(2):224–256, 2015.
- [20] A. Rasila. E-assessment material bank abacus. In *Proceedings of EDILEARN16*, 8th Annual International Conference on Education and New Learning Technologies, July 2016.
- [21] A. Rasila, M. Harjula, and K. Zenger. Automatic assessment of mathematics exercises: Experiences and future prospects. In *ReflekTori 2007: Symposium of Engineering Education*, pages 70–80. Helsinki University of Technology, Finland, Teaching and Learning Development Unit, http://www.dipoli.tkk.fi/ok, 2007.
- [22] A. Rasila, L. Havola, H. Majander, and J. Malinen. Automatic assessment in engineering mathematics: evaluation of the impact. In *ReflekTori 2010: Symposium of Engineering Education*. Aalto University, Finland, Teaching and Learning Development Unit, http://www.dipoli.tkk.fi/ok, 2010.
- [23] A. Rasila and J. Malinen. Moocs in first year engineering: Mathematics experiences and future aims. In *Proceedings of 44th SEFI Conference, Tampere, Finland*, September 2016.
- [24] A. Rasila, J. Malinen, and H. Tiitu. Automatic assement and conceptual understanding. *Teaching Mathematics and its Applications*, 34(3):149–159, 2015.
- [25] J. Ruokokoski. Automatic assessment in university-level mathematics. Master's thesis, Helsinki University of Technology, 2009.

- [26] C. Sangwin, C. Cazes, A. Lee, and K. L. Wong. Micro-level automatic assessment supported by digital technologies. In *Mathematics Education and Technology-Rethinking the Terrain*, volume 13 of *New ICMI Study Series*, pages 227–250. Springer, 2009.
- [27] C. J. Sangwin. New opportunities for encouraging higher level mathematical learning by creative use of emerging computer aided assessment. *International Journal of Mathematical Education in Science and Technology*, 34(6):813–829, November 2003.
- [28] C. J. Sangwin. Assessing mathematics automatically using computer algebra and the internet. *Teaching Mathematics and its Applications*, 23(1):1–14, 2004.
- [29] C. J. Sangwin. Assessing elementary algebra with STACK. *International Journal of Mathematical Education in Science and Technology*, 38(8):987–1002, December 2008.
- [30] C. J. Sangwin. Who uses STACK? a report on the use of the STACK CAA system. Technical report, The Maths, Stats and OR Network, School of Mathematics, The University of Birmingham, 2010.
- [31] C. J. Sangwin. Computer aided assessment of mathematics using stack. In *Selected Regular Lectures from the 12th International Congress on Mathematical Education*, pages 695–715, 2012.
- [32] C. J. Sangwin. *Computer Aided Assessment of Mathematics*. Oxford University Press, Oxford, UK, 2013.
- [33] C. J. Sangwin. Inequalities, assessment and computer algebra. *International Journal of Mathematical Education in Science and Technology*, 46(1):76–93, 2015.
- [34] C. J. Sangwin. Who uses STACK? a report on the use of the STACK CAA system. Technical report, Loughborough University, Loughborough, UK, 2015.
- [35] C. J. Sangwin and M. J. Grove. STACK: addressing the needs of the "neglected learners". In *Proceedings of the First WebALT Conference and Exhibition January 5–6, Technical University of Eindhoven, Netherlands*, pages 81–95. Oy WebALT Inc, University of Helsinki, ISBN 952-99666-0-1, 2006.
- [36] C. J. Sangwin and M. Harjula. Online assessment of dimensional numerical answers using STACK in science. *European Journal of Physics*, 2017.
- [37] C. .J. Sangwin and D. F. M. Hermans. A report on the use of stack in mathematics at birmingham 2012–2013. *Community for Undergraduate Learning in the Mathematical Sciences*, 8:16–30, December 2013.
- [38] C. J. Sangwin and I. Jones. Asymmetry in student achievement on multiple choice and constructed response items in reversible mathematics processes. *Educational Studies in Mathematics*, 94:205–222, 2017.
- [39] C. J. Sangwin and N. Köcher. Automation of mathematics examinations. *Computers and Education*, 94:215–227, 2016.
- [40] C. J. Sangwin and P. Ramsden. Linear syntax for communicating elementary mathematics. *Journal of Symbolic Computation*, 42(9):902–934, 2007.

- [41] S. Shirai and T. Fukui. Improvement in the input of mathematical formulae into stack using an interactive methodology. *Computer and Education*, 37:85–90, December 2014. (In Japanese).
- [42] S. Shirai and T. Fukui. Improving the math input method for matrices for use in linear algebra on stack. *IPSJ Transactions on Computers and Education*, 1(3):22–29, March 2015. (In Japanese).
- [43] S. Shirai, Y. Nakamura, and T. Fukui. An interactive math input method for computer aided assessment systems in mathematics. *IPSJ Transactions on Computers and Education*, 1(3):11–21, March 2015. (In Japanese).

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