

SICSA Research Theme Activity Report

Please complete all sections of this reporting template and submit within four weeks of your event or activity taking place. This report will allow the SICSA Directors to provide detailed information about the progress of the SICSA Research Themes to the Pool funders, SFC, and your cooperation is appreciated.

Primary Applicant

Name of event primary organiser: Hans-Wolfgang Loidl

Institution: Heriot-Watt University

Email address: H.W.Loidl@hw.ac.uk

Event Details

Title of event: SICSA Programming Challenge

Location of the event: online

Date of event: 25.1.2023

Was this a cross research theme event NO

Which SICSA Research Theme(s) sponsored your event: Theory, Modelling & Computation

Was the event in collaboration with another SFC Research Pool NO

If yes, please confirm:

Was the event in collaboration with Innovation Centre NO

If yes, please confirm

Event Summary

Please outline in brief what took place at the event, providing details of speakers and titles of talks:

The fourth instance of the SICSA-funded programming challenge, called "humble Hamming", did run on Wed 25^h of January, 2023. The series of SICSA Programming Challenges, started during lock-down in June 2020, is continuing and is now run as a Scotland-wide event. As before, a sequence of programming tasks was posted on the OpenKattis platform (<https://open.kattis.com>), which

provides a huge repository of online problems, and performs automatic scoring of challenges submitted by students. Similar to many of these platforms, it markets itself as a tool for preparing for technical interviews and honing programming skills. Thus it is highly relevant for computer science students, who will be entering the job market soon.

The event attracted 20 students and 16 of these students submitted at least one correct solution to the challenge tasks posed. The top student managed to solve all five problems within 96 minutes (the available time window was 4 hours). This time the top student was from the University of Edinburgh. In the series of SICSA programming challenges this makes it 2-2 for Edinburgh vs Glasgow. Despite the smaller total number of students, we have a good spread and in total students from five Scottish universities participated in this challenge.

More information on the programming challenge is available on this web site:
http://www.macs.hw.ac.uk/~hwloidl/Events/SICSA_ProgrammingChallenge/

Please confirm an approximate number of attendees and if possible, information about which institutions were represented:

The event attracted 20 students and 16 of these students submitted at least one correct solution to the challenge tasks posed. The participating universities were: Heriot-Watt University, the University of Edinburgh, the University of St Andrews, the University of Glasgow, and the University of the West of Scotland.



The Scottish Informatics &
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Outcomes:

Do you have any plans to bid for further SICSA Theme Funding in the future? YES

If yes, please provide details:

We plan to continue this series of programming challenges, and plan for another event most likely in January 2024.

Did this event strengthen relations with other Research Pools and/or Scottish Innovation centres? NO

If yes, please provide details:

Please give details of any potential research papers that have come or are pending as a result of this activity:

Please provide details of any grant applications that have come or are pending as a result of this activity: none directly

Please provide details of any further outcomes that you think will come as a result of this activity:

After running four SICSA-wide challenges, we now have an organising team from six different Scottish universities in place: Dr Hans-Wolfgang Loidl, Dr Rob Stewart (Heriot-Watt University), Dr Michio Honda (University of Edinburgh), Dr Chris Brown (University of St Andrews), Dr Jeremy Singer (University of Glasgow), Dr Carron Shankland (University of Stirling), Dr Paul Keir <Paul.Keir@uws.ac.uk> (University of the West of Scotland).

We encourage other academics to get in touch in order to grow the effort and expand the base of potential participants. We plan to build on the success of this challenge and run more SICSA-wide instances of this programming competition, and to possibly grow this into a UK-wide event. Our thanks go to SICSA for funding the prize money for the winners of the event and for promoting this event.

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