Summer School on Verification and Programming Languages

Ekaterina Komendantskaya,
Heriot-Watt University
SICSA Research Theme Leader for Theory, Modelling and Computation
Background

- Demands of PG research: knowledge of maths, semantics, programming, logic
- Gap in skills of BSc/MSc graduates: practical skills more than systematic training in the above topics
- This is an internationally recognised problem
Solutions? -- Summer Schools for up-training

- Oregon Programming Languages Summer School in the US
  (https://www.cs.uoregon.edu/research/summerschool/summer19/)
- and Midlands Graduate School in the UK
  (http://www.cs.nott.ac.uk/MGS/)
What do they do?

- Bridge the gap
- Facilitate knowledge exchange
- Provide essential training in state-of-the-art methods
- Provide networking opportunities for research students
Why do we need our own in Scotland?

- To ensure competitiveness of Scottish universities as compared to peers
- To promote the intellectually distinct and unique position of Scotland as a hub for Verification and Programming languages technology.
  - Create own unique intellectual product (the courses)
  - Build up on areas we are famous in: programming languages, semantics, theorem proving, ...
- To attract talent and international expertise to Scotland, and facilitate export of knowledge/technology.
- Own twist on the School topics: Verification and PL
Structure of the school

- 2 core classes (C1,C2),
- 4 advanced classes (A1-A4) and
- one invited course by a recognised leader in the field outside Scotland (I).
<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-10.30</td>
<td>C1</td>
<td>C2</td>
<td>C1</td>
<td>A1-2</td>
<td>A3-4</td>
</tr>
<tr>
<td>11-12.30</td>
<td>C2</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>15.30 -- 17.00</td>
<td>C1</td>
<td>A3-4</td>
<td>free time</td>
<td>A1-2</td>
<td>A3-4</td>
</tr>
</tbody>
</table>
**Where we are now?**

- Application for SICSA support submitted on the 28th February:

<table>
<thead>
<tr>
<th>Applicant Name</th>
<th>Email Address</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ekaterina Komendantskaya</td>
<td><a href="mailto:ek19@hw.ac.uk">ek19@hw.ac.uk</a></td>
<td>Heriot-Watt University</td>
</tr>
<tr>
<td>Susmit Sarkar</td>
<td><a href="mailto:Susmit.Sarkar@st-andrews.ac.uk">Susmit.Sarkar@st-andrews.ac.uk</a></td>
<td>St Andrews University</td>
</tr>
<tr>
<td>James Cheney</td>
<td><a href="mailto:jcheney@inf.ed.ac.uk">jcheney@inf.ed.ac.uk</a></td>
<td>Edinburgh University</td>
</tr>
<tr>
<td>Clemens Kupke</td>
<td><a href="mailto:clemens.kupke@strath.ac.uk">clemens.kupke@strath.ac.uk</a></td>
<td>Strathclyde University</td>
</tr>
<tr>
<td>Jeremy Singer</td>
<td><a href="mailto:jeremy.singer@glasgow.ac.uk">jeremy.singer@glasgow.ac.uk</a></td>
<td>Glasgow University</td>
</tr>
<tr>
<td>Ohad Kammar</td>
<td><a href="mailto:ohad.kammar@ed.ac.uk">ohad.kammar@ed.ac.uk</a></td>
<td>Edinburgh University</td>
</tr>
</tbody>
</table>
Proposed venue and dates:

- The venue: Strathclyde University
- The team: Clemens Kupke, Conor McBride, Bob Atkey, Fred Forsberg, Neil Ghani, ...
- The dates: 5 -- 10 August (Discuss!!!)
- The speakers: we have 18 proposed courses in our “repository”. The organisers will be in touch with individuals re the dates
- Everyone on the list will get a chance to present, eventually
What can YOU do?

- Are you a potential Summer School lecturer? -- submit your proposed course via [https://goo.gl/forms/qE1RSFHnIM5irfxq1](https://goo.gl/forms/qE1RSFHnIM5irfxq1)
  
  You will get all updates re organisation and we will know what you can/wish to teach

- Are you a PhD student/RA? -- let us know your thoughts. Are there courses that you dream to attend? Contact me or your Uni main lead

- **Register and attend when it comes to it!** (free spaces for SICSA PhD students if SICSA funds the scheme)