SAT 2012: Conference Report

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1 Submission & Review Process

The SAT 2012 submission process was characterized by some facts.

- in the CFP, we insisted on the concept of **"broad" scope of the word "SAT"**, including, e.g., SMT, MAX-SAT, QBF, CSP;
- we introduced the possibility of <u>directly</u> submitting **poster-presentation papers** (2-page abstracts), to be presented as posters;
- we introduced **tool presentation papers** (6 page), like in many other conferences;
- we have decided to **collect the slides** of the conference, so that to make them available at the SAT'12 web site after the conference;
- we introduced a **rebuttal phase** in the review process;
- we kept submission deadline quite late, 2-3 weeks after IJCAR and CAV.

The latter fact came at the cost of postponing significantly the notification date, so that it was not possible to have printed proceedings ready at conference time. However, the Springer LNCS pdf files are distributed in a memory stick, whilst the printed LNCS proceedings can be ordered at the desk on demand. Given the low interest on printed proceedings which we observed in the latest edition, we believe this is no problem.

Figure 1 reports the statistics about paper submission and acceptance/rejection of the last editions, taken from easychair and proceedings prefaces. (Notice that there are some problems with the data of 2009 edition; we ask previous chairs to communicate us missing data or errors). Overall there were 112 submissions (88 full, 10 tool and 14 poster papers). Each submission was reviewed by at least 3 Program Committee members. After the rebuttal phase, the committee decided to accept 52 papers (29 full, 7 tool and 16 poster papers). Notice that 7 full papers were accepted as posters.

As far as the effects of the rebuttal phase are concerned, we notice that with (at least) 7 borderline papers at least one reviewer commented that the rebuttal was proficuos to some extent. (To this extent, in possible editions it is possible to propose a rebuttal phase restricted only to borderline papers.) Another beneficial effect of rebuttal is that it provides a "feedback" to reviews: reviewers know a priori that any error or sloppiness in their review can be highlighted by the rebuttal. We believe this has beneficially influenced the quality of reviews, which overall was quite good.

We adopted and made explicit a policy for Conflicts Of Interest (COI) that is standard in ACM-sponsored conferences. It is used in major conferences like CAV, FM-CAD, TACAS, and applied by the ACM Special Interest Group on Software Engineering. We introduced such rules as a consequence of the SAT'11 business meeting – we

| SAT EDITION	'12 ITA	'11 USA	'10 UK (floc)	'09 UK	'08 CHI	'07 POR	'06 USA (floc)	'05 UK	'04 CA	'03 ITA	'02 USA
SUBMITTED (TOTAL)	112	57	77	86	62	70	80	73	72	67	54
full	**88**	57	56	≤ 78	62	70	65	?	72		41
short/tool	10		21	≥ 8			15	?			13
poster/abstract	14							?			
ACCEPTED											
full $\Rightarrow$ full	29	25	21	34	25	31	26	?	30	?	?
short/tool $\Rightarrow$ short/tool	7		6	7			2	?		?	?
poster $\Rightarrow$ poster	9							?		?	?
full $\Rightarrow$ short			8	4			9	?	18	?	?
full $\Rightarrow$ poster	7	10						?		?	?
Total full	29	25	21	34	25	31	26	?	30	?	?
Total short/tool	7		14	11	0	0	11	?	18	?	?
Total poster	16	10						?		?	?
REJECTED (TOTAL)	60	22	42	41	37	39	43	?	24	?	?
ACCEPTANCE RATE (%)											
full $\Rightarrow$ full	**33**	44	38	44	40	44	40	?	42	?	?
short/tool $\Rightarrow$ short/tool	70		29	88			13	?		?	?
poster $\Rightarrow$ poster	64							?		?	?
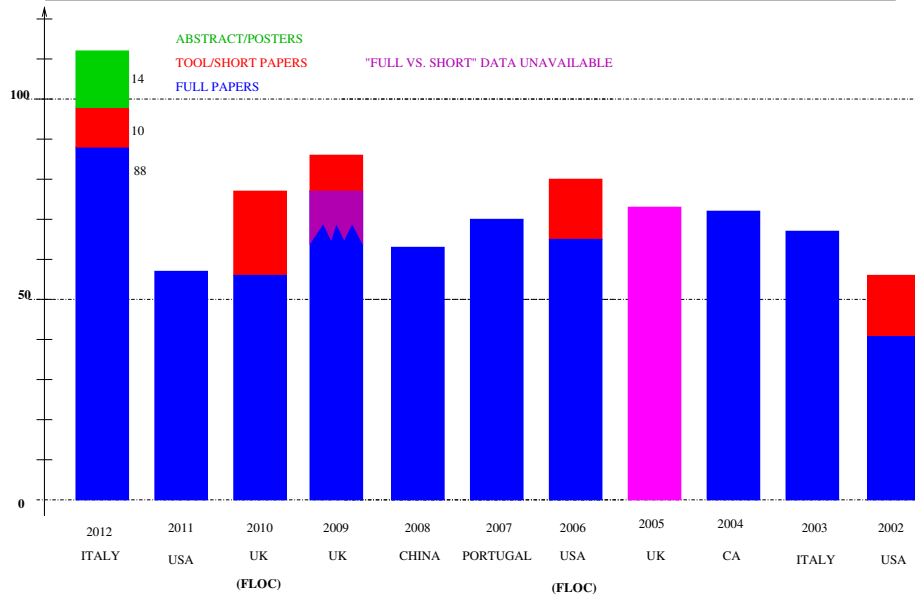
Fig. 1. Top: Statistics on paper submission/acceptance. Bottom: submissions numbers.

were explicitly asked to make rules clearer and more explicit, for both authors and PC members/reviewers.

Analyzing the data and comparing them with these of the last editions, some explanation and comments are in order.

- We had the highest number of full paper submissions, 88. [3] Given these numbers, we kept the (full⇒full) acceptance rate the lowest (33%).
- Given the spirit of poster-presentation papers, we've been quite generous in accepting them.
- We were surprised by the low number (10) of tool paper presentation. We conjecture that this is was due to the fact that this was a novelty for the community (whilst it is consolidated practice in other conference like CAV, TACAS, CADE/IJCAR,...). To this extent, we have been quite generous in accepting them.

As a side note, we also had a few papers submitted addressing the "P vs NP" issue. Reviewing these paper required a significant effort from some reviewer. All contained blatant mistakes and were very-negatively rejected. (In two cases, the author(s) reacted very negatively with protests.) We raise the issue, for next editions, to consider this kind of submissions as "out of scope", and to state this explicitly in the call for papers.

2   The Conference

A few related events have characterized this edition. First, SAT 2012 was co-located with the *2nd International SAT/SMT Summer School* on June 12-15 (see `http://satsmtschool2012.fbk.eu/`), organized by Alberto Griggio and Stefano Tonetta of FBK-Irst, which attracted 140 attendees (tens of candidate attendees could not be admitted for lack of space).

Second, SAT 2012 hosted two workshops on June 16:

- CSPSAT 2012 – Second International Workshop on the Cross-Fertilization Between CSP and SAT, organized by Yael Ben Haim and Yehuda Naveh;
- PoS'12 – Third International Workshop on Pragmatics of SAT, organized by Daniel Le Berre and Allen Van Gelder.

Third, SAT 2012 hosted four competitive events:

- Max-SAT 2012 – Seventh Max-SAT Evaluation, organized by Josep Argelich, Chu Min Li, Felip Manya, and Jordi Planes;
- PB12 – Pseudo-Boolean Competition 2012, organized by Vasco Manquinho and Olivier Roussel;
- QBFEVAL'12 – QBF competition 2012, organized by Massimo Narizzano;
- SAT Challenge 2012, organized by Adrian Balint, Anton Belov, Matti Jarvisalo, and Carsten Sinz.

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[3] We counted in a paper which was withdrawn from easychair by the authors during the rebuttal phase, after receiving negative reviews.

Fourth, two very-attractive invited speakers have accepted to come to SAT 2012: Aaron Bradley and Donald Knuth. Due to numerous requests from outside the SAT community, in agreement with the SAT s.c., we have decided to open the Knuth talk to non-SAT attendees, and to transform his talk into a "Knuth Event", which includes also a "question-answering" session on non-SAT related topics.

Registration-wise:

– SAT 2012 counts 123 paying attendees (84 regular, 39 student), plus 4 accompanying persons, 2 invited speakers, and several staff and volunteers, for a total amount of 142 people.
– CSPSAT 2012 had 14 paying attendees (9 regular, 5 students), whilst PoS'12 had 46 (23 regular, 13 students), plus some volunteer, guests and invited speakers.
– The "Knuth Event" counts other 232 "external" registered attendees, plus all SAT 2012 attendees.

As a comparison, in figure 2 we report the paying-registrant figures of the last editions. We notice that attendance was the highest ever, including the two FLoC editions.

3   Comments

We believe that the following facts played a key role for the success of the conference, in terms of submission numbers, attendance, and general quality of the event.

– **The colocation with the SAT/SMT Summer School**, which brought to Trento a large amount of students (and 15 speakers), a significant amount of whom (17+8) remained for the conference.
– **The choice of invited speakers**, Aaron Bradley and Donald Knuth, who raised both quality and attractiveness of the conference.
– **The possibility of submitting tool papers**. [4] We strongly believe that a community like SAT, which provides an amount of tools which are widely used in many other communities, must provide and encourage the possibility of submitting tool papers. From the perspective of the conference, this allows to increase the attendance. From the viewpoint of the authors, it provides an occasion of presenting a demo of their tool and to obtain feedback from the most authoritative experts and practitioners in the field. Also, we recall that often tool-papers are highly-cited ones if the tool is widely used.
– **The possibility of submitting poster papers directly**, having a (short) entry in the proceedings, which provided a stimulus for students to submit their ongoing work and, if accepted, to have the chance of obtaining funds for attending the conference. From the perspective of the conference, this allows to increase the attendance and bring novel people into the community. From the viewpoint of the authors, it provides an occasion of presenting half-baked ideas and to obtain feedback from the most authoritative experts in the field. Also, we recall that often students have no chance of attending a conference unless they have an entry in the proceedings.

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[4] For both tool and poster papers, we believe it essential that a label like "(Tool Presentation)" and "(Poster Presentation)" respectively appears in the title, to distinguish them from full scientific papers.

SAT	2012 ITA	2011 USA	2010 UK (floc)	2009 UK	2008 CHI	2007 POR	2006 USA (floc)	2005 UK	2004 CA	2003 ITA	2002 USA
Regular	**84**	?	76	?	?	?	?	?	?	?	?
Student	**39**	?	42	?	?	?	?	?	?	?	?
Total	**123**	67	118	82	80	81	93	70	75	98	92
CSPSAT	14 (9+5)										
PoS	36 (23+13)										
Knuth Event	+ 232										
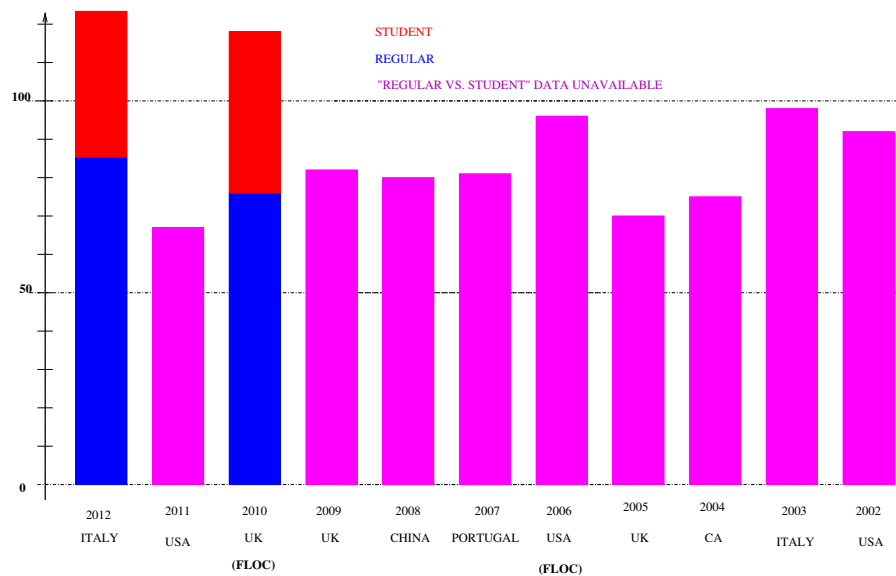
Fig. 2. Top: Statistics on registration. Bottom: registration numbers.

– **The "Italy effect"**: Italy's attractiveness (location, food, wines,...) seem to have some beneficial effect on submission and registration numbers.
– **A proper choice of dates**: providing authors enough time between submissions in related conferences is essential. Also, we experienced the fact that, since the availability of printed LNCS proceedings at the conference is no more an issue, releasing such constraint is very beneficial.

To this extent, we suggest to follow these lines also in future editions.

We also add that, having some form of travel support of students (as done by, e.g., CADE/IJCAR) would be beneficial and desirable.

4   Acknowledgements and Thanks