REPORT ON LPAR 2013
19th International Conference on Logic for Programming Artificial Intelligence and Reasoning

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The series of International Conferences on Logic for Programming, Artificial Intelligence and Reasoning (LPAR), grew out of the 1st and 2nd Russian Conferences on Logic Programming (RCLP) in 1990 and 1991. The scope of the conference was then extended in 1992 with the change of the name to Logic Programming and Automated Reasoning. In 1999 the conference was renamed Logic for Programming and Automated Reasoning and the scope was further extended in 2001 as reflected by its new name that kept, anyway, the same acronym. LPAR 2013 was held in Stellenbosh, South-Africa, from the 15th to the 19th of December 2013, during the South-African summer, hosted by the South African Institute of Advanced Studies (STIrrS), in collaboration with the University of Stellenbosh.

Following the conference’s motto (“Our mission: To boldly go where no reasonable conference has gone before”), LPAR was previously held, to cite only the most recent editions, in Jamaica (12th), Cambodia (13th), Armenia (14th), Qatar (15th), Senegal (16th), Indonesia (17th), and Venezuela (18th). Nevertheless, this year’s edition was marked by a unique event: the sudden death of South-Africa’s former president Nelson Mandela; the coincidence of these two unrelated events was underlined even more by the fact that Mandela’s funeral was scheduled on the 15th of December, the opening day of LPAR. As a tribute to such a great human being, the invited talk of the opening session of the main conference, given by Toby Walsh, included a touching and inspiring prologue. Moreover, the welcome message was given not only in English, but also in Afrikaans and in Xhosa, two of the 11 official languages in South-Africa, a country that makes of integration and diversity its very emblem.

This year, under the guidance of the general chair Bernd Fisher, the program included, besides Toby Walsh’s (about decomposition in SAT), other two invited talks, by Volker Diekert on the 16th (about the so-called local divisor approach in first-order logic), and by Frank Wolter (about ontology-based data access) on the 18th. On the 17th, the organizers gave the attendees the opportunity to visit
one of the most spectacular beaches in South-Africa, that is, the Boulders Beach Penguin Colony, located a few kilometers to the south of Simon’s Town, towards Cape Point, where everyone has the chance of seeing and interacting with a 30-years established African penguin colony; probably, a once-in-a-lifetime experience for most people. On the 16th and the 18th, even lunchtime was taken as an opportunity to mix Computer Science and tourism, as lunch was scheduled at the Tokara Wine and Olive Farm, located in the Helshoogte Valley, and Lanzerac Wine Estate, respectively. The social dinner and farewell party was organized as a braai (a traditional South-African barbecue) at the Middelvlei Wine Estate. From a technical point of view, LPAR is never disappointing: it is usually organized in a single-session fashion, and each session is focused on a different main sub-area of Computer Science. This year’s edition, with an acceptance rate of 38%, included 44 regular papers and 8 tool descriptions and system presentations. Moreover, the conference hosted four co-located workshops, namely: Algebraic Logic in Computer Science, the 2nd Workshop on Automata, Logic, Formal languages, and Algebra, the 7th International Workshop on Analytic Proof Systems, the 10th International Workshop on the Implementation of Logics, and the First Workshop on Logics and Reasoning for Conceptual Models. The program of the main event included, among others, a system description about a theorem prover for full first-order logic, one paper from the machine learning area, three contributions from the proof systems field, and various papers in the SAT and constraint solving area. Almost an entire session was devoted to papers in the Description Logic field. At least three contributions came from the automata theory. Other contributions were centered on tableau- and resolution-based systems, modal logic provers, decidable clausal first-order fragments, various aspects of temporal logics, substructural logics, and algorithms.

Personally, I feel that it is both its scope and its long history, what makes of the LPAR conference series one of the most interesting periodic events in Computer Science. Thanks to its peculiar structure, this conference is able to gather researchers from a variety of different fields. They have the opportunity to interact during three days, both during the technical sessions and the satellite events, and the final result is usually enriched by attractiveness and the peculiarity of the chosen venues. In a sentence, LPAR has both the wide variety of contributions of very big events such as IJCAI or ECAI, but with the structure and organization of a small local workshop.