Preface

A nonstandard spirit among computer scientists: a tribute to Serge Grigorieff at the occasion of his 60th birthday

Serge Grigorieff was born in Pont de Chéruy, Isère, France, on January 12, 1948. In the late fifties his family moved to Paris. After graduating from the Lycée Charlemagne, he entered the Faculty of Sciences of the University of Paris where he earned his Ph.D. (thèse de troisième cycle) in 1970 under the direction of Kenneth McAloon with a dissertation on set theory. In 1971 Robert Solovay invited him to Berkeley for several months. He then gained his "thèse de doctorat d'état" in mathematics in 1974, at the University of Paris 7, nowadays known as Université Denis Diderot, an offshoot of the Sorbonne University after it split in 1971. Not limiting his interests to pure sciences, he also obtained a Bachelor's degree in psychology in 1975, at the same university.

In 1969, he started his scientific career as a young researcher at the CNRS (France's National Scientific Research Center), which he entered thanks to the decisive support of Laurent Schwartz, and where he held a position until 1979. In 1976-78 he was on leave as a visiting Professor at the University of Orsay, a few kilometers south of Paris, and one of the best scientific universities. He was appointed by the University of Lyon 1 in 1979 as a Professor in pure mathematics and then in 1988 by the University of Paris 7 to a position in computer science. He was recently promoted "professeur de classe exceptionnelle" the highest rank in French Academia.

His original research topic was set theory and more specifically *forcing*, a quite abstract field with few constructiveness considerations. After his "thèse de doctorat d'état", Serge Grigorieff felt the need for effectiveness, which was the turning point of his career towards computer science. He considers the shift from mathematics to computer science as a major experience in his intellectual life. He tells of his amazement when he discovered such elementary notions as recursive definitions and joint product, unknown to classical mathematics.

Due to his personal background, talent and expertise, Serge Grigorieff has had a strong influence in the theoretical computer science community both on organizational and scientific levels. He organized various seminars reflecting his shift

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from mathematics to computer science: "Théorie descriptive des ensembles" along
with Kenneth McAloon and Jacques Stern at the University of Paris 7, 1973–1977;
"Récursivité" at the University of Paris 11 (Orsay), 1976-78 during his leave from
the CNRS and "Complexité algorithmique" at the University of Paris 7, 1978-
79 along with Kenneth McAloon and then at the University of Paris 6, 1979-80
with Jean-Pierre Bénéjam and Jacques Stern. When he was appointed by the
University of Lyon 1, he set up the seminar "Théorie des algorithmes", 1981–88,
which sparkled one of his student's interest in cellular automata and specifically
in the famous "firing squad" problem. When he came to the LITP (the prede-
cessor of his current department LIAFA) he held regular group meetings with his
students. Along with Patrick Cegielski, Jean-Pierre Ressayre and Denis Richard,
Serge Grigorieff launched the workshop "Journées sur les Arithmétiques Faibles"
which has been held twice a year ever since: the last meeting took place in Sevilla,
Spain in June, 2007. In 1991 he organized a very successful Spring School (the
19th of the famous "Écoles de Printemps du LITP") on the topic "Mathématiques
et Informatique: quelques interactions" which gathered people from a host of dif-
ferent fields.

Serge Grigorieff has had 16 students (most now hold a position in some French
university) who worked on different topics: logical definability, recursivity theory,
abstract complexity and parallel models of computation. They remember him
as a particularly dedicated advisor. He has also been personally active in other
fields such as Borel games, Kolmogorov complexity, rational relations and infinite
computations. Serge is a scientist in the sense we like: science above all. We
are sure that he would have devoted his life (as he will devote his future life as a
pensioner) to science, no matter the professional circumstances, even had he not
benefited from the public financial support for research that we have enjoyed these
last decades. We imagine him living in the 19th century, appointed as a teacher
in some Parisian lycée and spending his spare time when not preparing lectures or
correcting assignments, to his personal research. He would wait for the weekend
in order to go to libraries and do bibliographic research and write surveys. Indeed,
he still speaks with enthusiasm of the libraries in Berkeley and the feeling he had
of entering the Garden of Eden. He has lots of unpublished manuscripts and it
would be unforgivable not to finalize and publish them.

The present volume gathers contributions of some of Serge's coauthors, col-
leagues and students. Rid of lecturing, we are sure that he will make good use of
his free time.

<div align="right">
Christian Choffrut\
Loïc Colson\
Paris, November 20, 2007
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