

Preface

“Il est à prévoir que, dans mes cours, la géométrie prendra souvent sa revanche du programme d’Erlangen, la théorie des groupes lui servant cette fois de prétexte.”

In his inaugural lecture at the Collège de France in 1975, Jacques Tits chose the above words to commence his description of the line of research he would pursue in his courses. They typify Jacques Tits as a mathematician: he held the Chair of Group Theory, but he was a geometer at heart. This duality is perhaps best reflected in his most important creation, that of a “building,” commonly referred to as a “Tits-building” in his honour. Tits-buildings are geometries with a rich and subtle structure which are now essential tools in the study of groups of “Lie type,” both finite and infinite.

While buildings and algebraic groups are a central theme in the work of Jacques Tits, they certainly do not exhaust the scope of his mathematical contributions. Just a glance at the present *Collected Works* reveals the remarkable breadth of his interests and accomplishments. Owing to his uncompromising demands regarding content and style of exposition, a substantial number of these results were hitherto unpublished. In spite of this, Jacques Tits has exerted a far-reaching influence on account of his willingness to share his insights for the benefit of colleagues and young researchers. This generosity has been a blessing for mathematics, as he generated more ideas than he had time to develop.

The selection of papers for this *Collected Works*, which include a number of unpublished manuscripts and lecture notes, was made by Jacques Tits himself. The course notes (“Résumés des cours”) of the Collège de France, which not only constitute an important piece of his mathematical work, but also contain valuable biographical information, are not included because they are intended to be published elsewhere. The most common reason for the omission of other papers is that their mathematical content was subsumed in subsequent publications. Further details can be found in the Notes of the Editors, where we also collect our personal comments on individual papers. We do not restrict ourselves to mathematical remarks, but endeavour to provide some historical perspective as well, albeit in a somewhat unsystematic way. The reader can find the comments and errata to each individual paper at the end of the corresponding volume, where we also explain the organizational details. Some notes, although related to a particular paper, can be read independently. We emphasize that no claims are made regarding the exhaustiveness of these notes.

The opening section is intended to introduce Jacques Tits as a mathematician and as a person. In addition to a short Curriculum Vitae, it includes texts by various authors written on some important occasions in the life of Jacques Tits. These are the preface to a special volume of the *Bulletin de la Société Mathématique de Belgique* written by

Preface

Francis Buekenhout on the occasion of the 60th birthday of Jacques Tits; an article in the *Gazette des Mathématiciens* of the *Société Mathématique de France* written by Alain Valette on the occasion of his winning the 1993 Wolf Prize; an article in the *Jahresbericht der Deutschen Mathematiker-Vereinigung* written by Herbert Abels on the occasion of his winning the Cantor-Medal in 1996; and an article in the *Gazette des Mathématiciens* of the *Société Mathématique de France* written by Guy Rousseau on the occasion of his winning the 2008 Abel Prize. Finally, we let Jacques Tits speak and write about himself, first in an interview for the *Newsletter of the European Mathematical Society* in 2008, and then in a description of his work written in 1972 and published in 2001 in *Wolf Prize in Mathematics*.

With the publication of these *Collected Works*, we are proud to make an important piece of XXth century mathematics available to a wider audience.

Acknowledgments. Many direct and indirect friends of Jacques Tits have helped us in putting together this “Collected Works.”

First of all we would like to thank Beukje Temmermans for the enormous job of doing electronic manipulations and preparations of the manuscripts.

Special thanks go to Aude Nguyen and Koen Struyve for retyping the Yale Lecture notes [B1] and [B2], and to Franz Bingen and Philippe Cara for coordinating the reproduction of [C1]. We are also grateful to Herbert Abels, Guy Rousseau and Alain Valette for the permission to reproduce their essays on Jacques Tits and his mathematical work.

Apart from the persons already mentioned, we had support in various ways from the following people: Pierre-Emmanuel Caprace, Arjeh Cohen, Hans Cuypers, Jan De Beule, Tom De Medts, Emmanuelle Fleury, Skip Garibaldi, Dina Ghinelli, Philippe Gille, Immanuel Halupczok, Jean-Yves Hée, Michael Joswig, Carola Klein, Ralf Köhl, Linus Kramer, George Lusztig, Thomas Meixner, Akihiro Munemasa, James O’Shea, Claire Pascaud, Antonio Pasini, Samuel Perez, Erik Rijcken, Jeroen Schillewaert, Gernot Stroth, Sonia Surmont, Jef Thas, Koen Thas, Richard Weiss, Stefan Witzel, Hiroshi Yamauchi, Satoshi Yoshiara and Daniela Zaharie. We are grateful for all this help, as well as for the support of the staff of the Collège de France, the DMV, and the MFO at Oberwolfach.

Finally, we thank the EMS publishing house, in particular Manfred Karbe, for their willingness to publish these *Collected Works*, and for the smooth cooperation and support during the preparation of this work.

August 2013

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Bernhard Mühlherr
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