



La lettre du Collège de France

9 | 2015

Collège de France Newsletter n°9

Publication of Jacques Tits' Work

Jean-Pierre Serre



Electronic version

URL: <https://journals.openedition.org/lettre-cdf/2229>

DOI: 10.4000/lettre-cdf.2229

ISSN: 2109-9219

Publisher

Collège de France

Printed version

Number of pages: 114

ISSN: 1628-2329

Electronic reference

Jean-Pierre Serre, "Publication of Jacques Tits' Work", *La lettre du Collège de France* [Online], 9 | 2015, Online since 29 September 2015, connection on 17 August 2022. URL: <http://journals.openedition.org/lettre-cdf/2229> ; DOI: <https://doi.org/10.4000/lettre-cdf.2229>

This text was automatically generated on 17 August 2022.

All rights reserved

Publication of Jacques Tits' Work

Jean-Pierre Serre

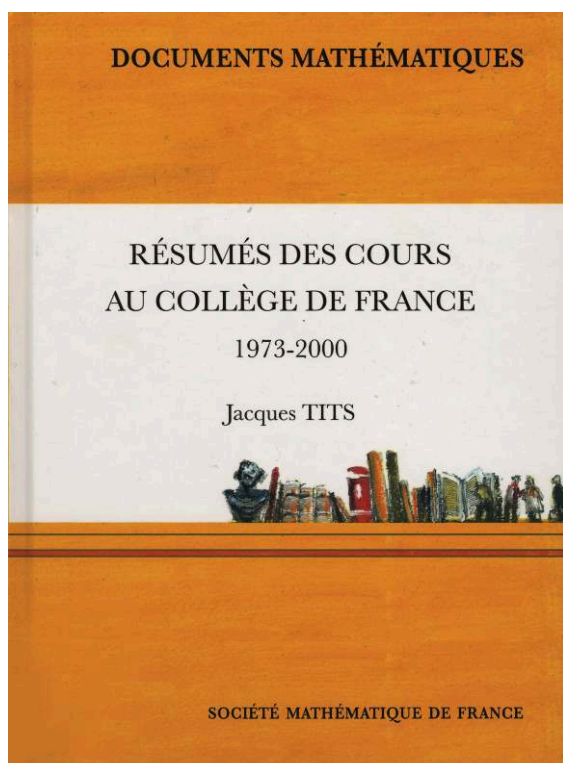
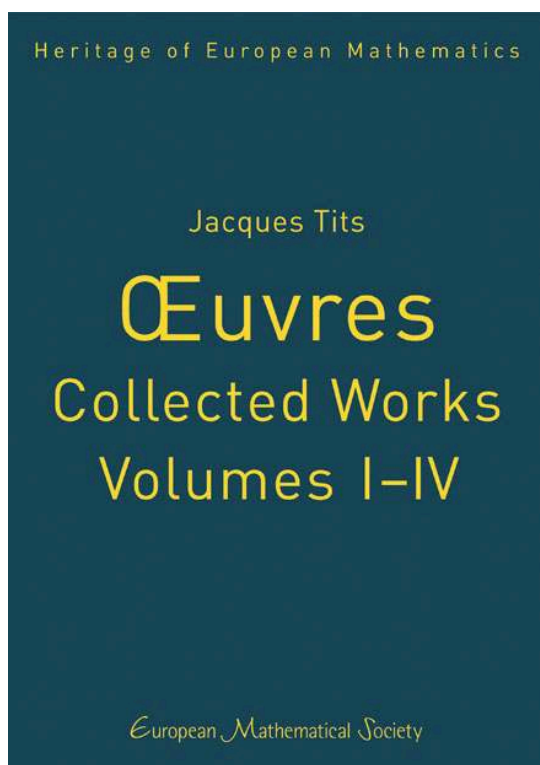
- ¹ Jacques Tits, Emeritus Professor at the Collège de France, was Chair of Group Theory from 1973 to 2000. Of Belgian origin, he also taught in Brussels and Bonn, before becoming a French citizen in 1974, so as to be able to be appointed as a professor at the Collège de France¹.



Jacques Tits, promoted to Officer of the Légion d'honneur in 2008.

- ² Two major publications honour Jacques Tits' work. In November 2013, four volumes of his *Œuvres-Collected Works*. Volumes 1-IV, comprising all the articles he wrote between 1949 and 2006, were published by the European Mathematical Society. Also at the end of 2013, the Société Mathématique de France published his *Résumés de cours au Collège de France* (1973-2000). This volume is a collection of the abstracts he published annually in the yearbook *Cours et travaux du Collège de France*. It describes either the work of other

mathematicians (particularly that of Grigory Margulis and Robert Griess), or their original results, many of which have not been published elsewhere.



- 3 These publications attest to the originality of Jacques Tits' ideas, and to their many applications. These ideas are rooted in his earliest work, carried out in Brussels around 1950, when he sought to translate into geometric language (his preferred language) some of the constructions of group theory, in Élie Cartan's and Hermann Weyl's vein.

This led him to invent the notion of “building” (with constituents named “chambers”, “apartments”, etc.), which was to prove crucial for questions seemingly remote from the initial project. The classification of these objects kept him busy almost until the end of his teaching at the Collège de France, in 2000.

- 4 We also owe him magnificent isolated results, like the “Tits’ alternative”, which claims that a finite linear group only has two very different possibilities: it is either solvable (to the nearest finite group), or free non-abelian (to the nearest finite group). There is no middle ground!

Two Abel Laureates at the Collège de France

The Abel prize, created in 2002 and awarded by the Norwegian government, is considered to be the highest international distinction in mathematics. Two Collège de France professors have been awarded this prize. Jean-Pierre Serre, Chair of Algebra and Geometry from 1956 to 1994, received the Abel prize in 2003, the first year it was attributed, for “playing a central role in the elaboration of the modern form of several domains of mathematics like topology, algebraic geometry and number theory” (see *La lettre du Collège de France*, no. 8, July 2003, p. 15).

- 5 It was Jacques Tits’ turn to receive this prestigious scientific award in 2008. The Abel prize was awarded to him and to US mathematician John Griggs Thomson, by King Harald V of Norway “for their work in the formation of modern group theory” (see *La lettre du Collège de France*, no. 23, June 2008, p. 19). **Source: *La lettre*, no. 38, June 2014**

NOTES

1. Following Jacques Tits’ case, André Miquel, Collège de France Administrator from 1991 to 1997, aimed to open the Chairs of the Collège de France to foreign professors, which he was able to do in 1992.

AUTHOR

JEAN-PIERRE SERRE

Emeritus Professor, Chair of Algebra and Geometry (1956-1994)