

**Élie Cartan et les mathématiques d'aujourd'hui. The mathematical heritage of Elie Cartan (Seminar), Lyon, June 25-29, 1984.** (French) [[Zbl 0573.00010](#)]

*Astérisque*, 1985, Numéro Hors Série. Publié avec le concours du Centre National de la Recherche Scientifique. Paris: Société Mathématique de France. 440 p. (1985).

In this volume are gathered eighteen talks given by prominent specialists at the C.N.R.S.-N.S.F. Seminar "The mathematical heritage of Élie Cartan" held in June 1984 in Lyon (France). Recent developments on topics originating in Élie Cartan's work such as Systems of Partial Differential Equations, Representations of Lie Groups, Riemannian and Conformal Geometries, General Relativity and Symmetric Spaces are presented.

The articles of this volume will be reviewed individually under the abbreviation "Élie Cartan et les mathématiques d'aujourd'hui, The mathematical heritage of Elie Cartan, Semin. Lyon 1984, *Astérisque*, No.Hors Sér."

Indexed articles:

*Gelfand, I. M.; Zelevinsky, A. V.*, Representation models for classical groups and their higher symmetries [[Zbl 0594.22007](#)]

*Kuranishi, Masatake*, Cartan connections and CR structures with non-degenerate Levi-form [[Zbl 0596.53031](#)]

*Trautman, Andrzej*, Optical structures in relativistic theories [[Zbl 0599.53055](#)]

*Fefferman, Charles; Graham, C. Robin*, Conformal invariants [[Zbl 0602.53007](#)]

*Singer, I. M.*, Families of Dirac operators with applications to physics [[Zbl 0603.58054](#)]

*Choquet-Bruhat, Yvonne*, Causalité des théories de supergravité. (Causality of supergravity theories) [[Zbl 0604.53047](#)]

*Mostow, G. D.*, Discrete subgroups of Lie groups [[Zbl 0605.22008](#)]

*Kostant, Bertram*, The McKay correspondence, the Coxeter element and representation theory [[Zbl 0605.22010](#)]

*Weinstein, Alan*, Poisson structures and Lie algebras [[Zbl 0608.58027](#)]

*Souriau, Jean-Marie*, Un algorithme générateur de structures quantiques. (A productive algorithm for quantical structures) [[Zbl 0608.58028](#)]

*Helgason, Sigurdur*, The Fourier transform on symmetric spaces [[Zbl 0611.43005](#)]

*Gromov, M.*, Isometric immersions of Riemannian manifolds [[Zbl 0612.53032](#)]

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*Guillemin, Victor*, The integral geometry of line complexes and a theorem of Gelfand-Graev [[Zbl 0614.53051](#)]

*Berger, Marcel*, La géométrie métrique des variétés riemanniennes. (Variations sur la formule  $a^2 = b^2 + c^2 - 2bc \cos \alpha$ ). (The metric geometry of Riemannian manifolds (Variations on the formula  $a^2 = b^2 + c^2 - 2bc \cos \alpha$ )). [[Zbl 0615.53028](#)]

*Koszul, Jean-Louis*, Schouten-Nijenhuis bracket and cohomology. [[Zbl 0615.58029](#)]

*Schmid, Wilfried*, Boundary value problems for group invariant differential equations [[Zbl 0621.22014](#)]

*Kac, V. G.; Peterson, D. H.*, Defining relations of certain infinite dimensional groups [[Zbl 0625.22014](#)]

**MSC:**

**00Bxx** Conference proceedings and collections of articles

**53-06** Proceedings, conferences, collections, etc. pertaining to differential geometry

**58-06** Proceedings, conferences, collections, etc. pertaining to global analysis

**22-06** Proceedings, conferences, collections, etc. pertaining to topological groups

Cited in **18** Reviews

**Keywords:**

Mathématiques d'aujourd'hui; Lyon; Seminar; Systems of Partial Differential Equations; Representations of Lie Groups; Riemannian and Conformal Geometries; General Relativity; Symmetric Spaces

**Biographic references:**

Cartan, Elie