

CLAUDIO PROCESI

Università di Roma, La Sapienza (Italy)

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CURRICULUM VITAE*

Personal and Educational Data:

1941 Born in Roma, Italy
1963 laurea in Matematica con lode, Università di Roma
1966 Ph. D. in Mathematics, University of Chicago

Employment:

1966-70 Assistente Ordinario Roma
1970-71 Full professor University of Lecce
1971-75 Full professor University of Pisa
1975-- Full professor University of Roma La Sapienza

Research Interests:

Algebras with polynomial identities, Varieties of representations, Invariants of matrices, Tableaux and invariants in positive characteristic, Determinantal Ideals, Singularities associated to conjugacy classes, Springer Representations, Enumerative geometry of quadrics and symmetric spaces, Geometry of orbits of compact groups, Cyclic homology, Quantum groups, Polytopes and toric arrangements, Equivariant K-theory and index theorem, non--linear Schrödinger equation

Awards:

1981 Medaglia per la Matematica from the Accademia dei XL.
1986 Feltrinelli prize in Mathematics.
1987 Member of the Accademia Nazionale dei Lincei.

Selected Academic Services and Functions:

1978 Director of the Mathematics institute, Roma
1986 Member of the "Panel of Algebra" for ICM Berkley
1992 Member of organizing committee of the International European congress
1994 chairman of the panel in Algebra for the I.C.M. in Zurich.

Member of the scientific committee of the European Community Human capital and mobility program. Directing committee of the Istituto di Alta Matematica. Member of the panel of the "Institut Universitaire de France". Member of the scientific council of I.C.T.P. and of I.M.C.A..Has been a member of the Abel prize committee and is vice-president of IMU for the period 2007--2010

In the year 2003--2007 has been involved in a program of cooperation with African Universities where he has organized several summer schools.

Has been editor of "Advances in Mathematics", "Communications in Algebra", "Duke Mathematical Journal", "Journal of Algebra", "Transformation groups", "M.R.L." and some Italian Journals

Publications:

About 106 publications

Recent papers:

De Concini, C.; Procesi, C., N. Reshetikhin, M. Rosso. *Hopf algebras with trace and representations*, Invent. Math. 161, no. 1, 1--44 (2005)

De Concini, C.; Procesi, C. *On the geometry of toric arrangements*, Transform. Groups 10, no. 3-4, pp. 387-422 (2005)

De Concini C., C. Procesi *A curious identity and the volume of the root spherical complex*, Rend. Lincei, s. IX, v. XVII, n. 2, pp. 155--165

De Concini C., C. Procesi (2008). *The zonotope of a root system*. Transformation groups, vol. 13; p. 507-526,

De Concini C., C. Procesi (2008). *Hyperplane arrangements and box splines*. Michigan Mathematical Journal, vol. 57; p. 201-225,

C. De Concini, C. Procesi. M. Vergne *Equivariant \$K\$-theory and index of transversally elliptic operators*. (in print Transformation groups)

C. De Concini, C. Procesi. M. Vergne *Partition function and generalized Dahmen-Micchelli spaces* (in print Transformation groups)

C. De Concini, C. Procesi. M. Vergne, *The infinitesimal index*, arXiv:1003.3525

C. De Concini, C. Procesi. M. Vergne, *Infinitesimal index: cohomology computations*, arXiv:1005.0128

M. Procesi, C. Procesi, *A normal form of the non--linear Schrödinger equation*. arXiv:1005.3838

Selected books:

C. Procesi, Rings with polynomial identities, M. Dekker, 1973

C. Procesi, Lie Groups: An Approach Through Invariants and Representations (Universitext) Springer 2006

De Concini C., C. Procesi, Topics in hyperplane arrangements, polytopes and box--splines (in print Springer)

STATEMENT AND DESCRIPTION OF ACTIVITIES

I am willing to commit myself to serve another term as Member-at-Large of the EC of IMU.

I think of IMU as the *common house of mathematicians* and as such I believe that its activity is most important for our colleagues from emerging and developing countries who need to feel part of a world community.

My personal feeling is that IMU, besides its traditional activities relative to ICM and various prizes, can serve a crucial role in at least 3 directions. Helping the developing countries, analyzing and helping to set universal standards of evaluation of research and finally helping to connect mathematics with other scientific disciplines.

I am willing to work in these directions and in particular I want to continue and possibly expand my activities in developing countries.

* More details can be found at my homepage [HYPERLINK "http://www.mat.uniroma1.it/~procesi"](http://www.mat.uniroma1.it/~procesi) <http://www.mat.uniroma1.it/~procesi/>

** My list of publications can be found at [HYPERLINK "http://www.mat.uniroma1.it/~procesi/publi.html"](http://www.mat.uniroma1.it/~procesi/publi.html) <http://www.mat.uniroma1.it/~procesi/publi.html> where some articles are offered electronically for download.