

Curriculum vitae of Dorin Popescu.

Name: Popescu Dorin-Mihail

Born: March 21, 1947 in Patarlagele, district Buzau, Romania.

Study: Faculty of Mathematics, University of Bucharest ,1964-1969, Ph.D 1974.

Positions: **Between 1969-1979** :Asistent in the Faculty of Mathematics, University of Bucharest.

Between 1979-1990: Senior researcher III in National Institute for Scientific and Technical Creation, Section of Mathematics.

Between 1990-present : Senior Researcher II in the Institute of Mathematics of Romanian Academy .From October 1,1991 Associated Professor and from February 1993 Professor in the Faculty of Mathematics of Univ Bucharest with half position Senior Researcher I in the Institute of Mathematics. PhD advisor after 1993.

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Fields of research : Commutative Algebra and Algebraic Geometry

Relevant scientific achievements: Original contribution concerning : Artin approximation and Henselian rings, Néron desingularization, Projective modules of polynomial rings over a regular ring, Maximal Cohen-Macaulay modules, Quasi-Buchsbaum modules and generalized Cohen-Macaulay modules, Rees algebras and Combinatorics in Algebra. My solutions to several conjectures of M.Artin, Bass-Quillen were presented in Bourbaki Seminaire by B.Teissier (1993-1994) and by R. Swan in *Néron Popescu Desingularization* in Algebra and Geometry, Ed. Ming-chang Kang, International Press, Boston, 1998. Together with J.Herzog and L. O'Carroll, I completed a Theorem of Knörrer which I used in the description of maximal Cohen-Macaulay modules over some hypersurfaces. Together with G. Pfister, I completed the Knörrer Periodicity Theorem in characteristic 2. Together with Herzog, I proved the Pardue Conjecture concerning the regularity and I gave partial answers of some conjectures of Eisenbud-Green-Harris in Cayley-Bacharach Theory and Higher Castelnuovo Theory. Together with R.Laza and G.Pfister I described the maximal Cohen-Macaulay modules over the cone of the projective curve $V(f)$, $f = X^3 + Y^3 + Z^3$ using Atiyah classification of the bundles over $V(f)$. Later together with C. Baci, V. Ene and G. Pfister I described the maximal Cohen-Macaulay modules over the surface $V(f)$, $f = X^3 + Y^3 + Z^3 + U^3$ of rank ≤ 2 . Together with J. Herzog I extended the concept of shellable simplicial complexes to the shellable multi-complexes and I studied the algebraic face of them the so called the pretty clean module filtrations. With I. Anwar I proved the Stanley conjecture for the monomial ideals in

four variables and recently I proved the same conjecture for five variables. On the other hand, I proved the same conjecture for the intersections of four monomial prime ideals in arbitrary number of variables and together with J. Herzog and M. Vladioiu I found an analogue of Lyubeznik Size Theorem in the frame of the Stanley depth. In the last time I came back to the Neron Desingularization finding a simpler proof for my General Neron Desingularization solving also completely a problem of Swan with applications to the Cohomological Purity Conjecture.

Awards: First prize for research (1973, Atena) of Balkanic Mathematics Union, Prize of the Romanian Academy in 1979.

Additional informations: In 1980-1981 I had a NSF fellowship at the Institute for Advanced Study Princeton USA. In 1990-1991 I had a Humboldt fellowship at Essen University which was extended with 6 months in 1992 to University of Osnabrück, Abteilung Vechta. Between 1993-1997 each year I was visiting professor 6 months in Sonderforschungsbereich 170 Göttingen, or University of Kaiserslautern or University of Essen supported by DFG or Alexander von Humboldt Foundation. In 1998 I was visiting one month the University of Edinburgh, one month the University of Kaiserslautern and one month the Sonderforschungsbereich Bielefeld, University Bielefeld. In 1999 I visited University of Edinburgh in May, June by a grant of EPSRC, University Kaiserslautern in April and in July, August, September the University Essen in the frame of a Humboldt fellowship. In 2000 I visited University Kaiserslautern and Essen in January-March in the frame of a DFG Grant and DAAD Grant and in May-June I visited University of Edinburgh by a grant of EPSRC. In 2001 I visited University of Kaiserslautern and Humboldt Berlin in January-March in the frame of a DFG grant and University Bordeaux in June. In 2002 I visited University Essen (January-March), University Barcelona and University Berlin (May-August). In 2003 I visited MSRI Berkeley (February-March) and University of Kaiserslautern in the frame of a DFG grant (June-July). From August 2004 to July 2005 I visited University Essen in a frame of a Marie Curie Intra-European Fellowship MEIF-CT-2003-501046. I had several conferences abroad in: MIT, Berkeley, Los Angeles, Salt Lake City, Urbana-Champaign (USA), Montreal (Canada), Edinburgh, Glasgow, Sheffield (Great Britain), Kyoto, Nagoya (Japan), Genova, Ferrara, Catania, Cortona (Italy), Barcelona (Spain), Bordeaux, Luminy, Grenoble, Nice (France), Utrecht, Leuven (Holland), Innsbruck, Vienna (Austria), Max-Planck Institut Bonn, Bochum, Essen, Stuttgart, Köln, Berlin, Cottbus, Eisenach, Göttingen, Bielefeld, Kaiserslautern, Oldenburg, Oberwolfach, Osnabrück, Vechta (Germany), Salonic (Greece), Oslo (Norway), Islamabad, Lahore, (Pakistan), Warsaw (Poland), Budapest (Hungary).

I supervised 8 PhD thesis in Bucharest of Viviana Ene, Marius Vladioiu, Mircea Cimpoeas, Alin Stfan, Dumitru Stamate, Costel Chites, Mihai Epure, Andrei Zarojanu and 5 PhD thesis in Lahore (Pakistan) of Imran Anwar, Sarfraz Ahmad, Imran Qureshi, Muhammad Ishaq, Asma Khalid. I mention that two of my former PhD: Prof. Viviana Ene and Conf. Marius Vladioiu have important places in the Romanian mathematics. Another PhD student of mine Zunaira Kosar from Lahore (Pakistan) has already the

PhD thesis written.

In the period 2004-2008 I was the President of Romanian Mathematical Society. In 2007 I got the title of Doctor Honoris Causa of University Ovidius Constanta. I am Editor of Bull. Math. Soc. Sci. Math. Roumanie.