

## CURRICULUM VITAE



### **Maria Cristina Pedicchio**

Date of birth 9.8.1953.

Academic Title: Degree in Mathematics at the University of Trieste (Italy) on 30.10.1976 with marks 110/110 cum laude.

**Full professor** of "Algebra", A01B sector, University of Trieste, Faculty of Sciences

### **Main appointments**

**President of CBM – Cluster in Molecular Biomedicine**, the institution managing the Technology District in Molecular Biomedicine of Region Friuli Venezia Giulia.

*CBM - a public-private consortium - was founded with the ambitious mission of acting as a bridge between public research and industry in the sector of “personalised medicine”. Located in Trieste within the AREA Science Park, and with laboratories operating in the main regional scientific institutions, CBM manages a **network** of science centres, companies, governmental bodies, development agencies and financial partners in order to stimulate and accelerate the process that transforms a “scientific idea” into a “product” (a drug, new therapy, new diagnostic system), to the benefit of citizens, society, and the social and economic development of the territory. CBM’s winning strategy is aimed at creating a synergy between **research, training and technology transfer**, by involving entrepreneurs, researchers and students in a series of actions and services. All this is accomplished thanks to six advanced laboratories for shared use, services to support IP protection and the creation of new entrepreneurship, training activities, public-private mobility, an economic observatory and a biotechnology observatory.*

**Member of ERAB – European Research Area Board:** 22 independent experts to advise the European Commission on the development and implementation of the European Research Area.

She is member of several **Board of Directors**, such as:

- International School for Advanced Studies (SISSA)
- United World College of the Adriatic
- International School of Trieste
- National Centre for Biological resources (CNRB)
- Association of Italian Technology Districts (ADITE)

- Technical Scientific Committee – National Agency for the Promotion of European Research (APRE)
- Regional Committee of Unicredit Bank

Member of the National **Group on the Internationalization of Biotechnologies and Life Sciences** of the Presidency of the Council of Ministers

Member of the **National Technical Group on the on the Innovative Medicines Initiative (IMI) and the National Programme “Industria 2015”**, coordinated and managed by the Ministry of University and Research

### **Main previous appointments**

**President** of the “AREA Science Park” of Trieste, National Research Institution of the Ministry for University and Research and managing body of the leading Science and Technology Park in Italy

**President** of the Coordination of national and international research centres in Trieste and in Friuli Venezia Giulia

**President** of the Regional Institute for the Right to Academic Education of Trieste

**National President** of the Association for the Right to Academic Education

Member of the Board of Directors of the European University Network Santander

**Expert** of the Ministry of Education, University and Research in the Working Group for the revision of the national Law on the right to academic education

**Expert of the European Commission** for the preparation of the Action Plan for Mobility – Council of Nice 2000;

**Member of the European Board of Directors** of the Santander Group;

**Italian representative** at the European Commission in the

- *Steering Group on Human Resources and Mobility in the European Research Area*
- *Working Group on portability of student grants: legal instruments*
- *Working Group on socio economic situation of the Erasmus Students*
- *Working Group on quality assurance in Erasmus mobility and compliance with the Erasmus University Charter*
- *Working group “Mobility and European Co-operation”, Lisbon follow-up.*

In 2007 she has been awarded the “Woman of the Year Award” by the International Federation of Business and Professional Women (Northeastern District)

In 2004 she has received the “Laureate of the Year Award” conferred by the Association of Graduates of the University of Trieste

## SCIENTIFIC ACTIVITIES

She is an internationally known researcher; in particular she has carried out advanced studies in Algebra, Category Theory and Topology. She is author of more than fifty scientific papers published in important international journals. She has collaborated with several prestigious research groups in Canada, Australia and Europe.

**Visiting professor :** Université Catholique de Louvain (Belgium), York University (Ontario, Canada), Mac Master University (Hamilton, Canada), University of British Columbia (Canada), Mc Gill University (Montreal, Canada), Università di Milano, Sydney University (Australia), Cambridge University (U.K.), Cape Town University (South Africa), Mount Allison University (Sackville, Canada), Brno University (Tzchech Republic), Dalhousie University (Halifax, Canada), Academy of Science (Budapest, Hungary), Charles University (Prague, Tzchech Republic).

During the above mentioned visits she has carried out research and teaching activities. She participated as speaker to many international meetings.

### Editorial boards

- Member of the Editorial board of the international journal “Homology, Homotopy and Applications”
- Member of the Editorial board of the international journal “Applied Categorical Structures”.

### Further activities

- Supervisor of research theses in Mathematics – University of Trieste.
- Supervisor of undergraduate theses and doctoral theses at the University Louvain la Neuve - Belgium.
- Referee in Category Theory for international journals.
- Organizer of international meetings.
- Organizer of international summer schools

## TEACHING ACTIVITIES

She holds the chair of Algebra 1 and Algebra 2 in the curriculum for the Mathematics degree of Trieste Furthermore she taught in many courses in the sector of Mathematics both for the Faculty of Sciences and for the Faculty of Architecture.

In the several courses she held, she has always tried to involve the students into an active participation to learning by joining the lessons with articulate didactic activities such as seminars, reading and discussion of research papers.

In particular students of the Higher Algebra course have been stimulated into creative studying thus having leading roles in the learning process, and introducing them also to research.

### **Didactic activities abroad**

- in English: “Calculus” course at York University - Toronto - Canada - 1984.
- in French: “Techniques in Categorical Algebra”, Doctoral course at the University of Louvain La Neuve - Belgium - 1994.
- in French: “Mal’cev Categories” course at the University of Louvain La Neuve - Belgium - 1997.
- in English: “Algebraic Theories” course – Summer School - Coimbra - Portugal – 1999.

In the past few years she has also taught on issues such as research and innovation strategies at prestigious Universities and scientific institutions such as:

- MIP, School of Management, Politecnico di Milano
- University of Naples “Federico II”

She is lecturer at the Master in Management of University and Research of the School of Management of the Politecnico di Milano.

## **INTERNATIONAL RELATIONS**

In the past ten years Maria Cristina Pedicchio committed herself with great interest and dedication to the development of a series of initiatives dealing with international activities and the promotion of European projects (and not only) both as far as research and as far as mobility are concerned. She was one of the first promoters of the Socrates activities, to which she gave a relevant boost and she has implemented several innovative initiatives in the sector of mobility between the academic and the entrepreneurial worlds. The strong belief that international experiences - including traineeships - have become elements which cannot be renounced for the personal and cultural training of young people, led her to successfully foster several co-operation projects financed by the European Commission, among which there is a prestigious collaboration project between the European Union and Canada.

In the past few years she has followed topics related to human resources in the field of research, with particular focus on:

- Marie Curie projects and researchers’ mobility
- Intersectorial mobility (academia/enterprise)
- Preparation and implementation of the European Charter for Researchers and the Code of Conduct for the recruitment of researchers”.

She is constantly invited as a speaker at national and international level to discuss about training strategies and international mobility of students and researchers.

### **Main positions and activities**

- She has been appointed **delegate of the Rector** (University of Trieste) for the European Union’s projects Leonardo da Vinci;
- She has been in charge of many Community projects Socrates/Erasmus, Tempus and Leonardo;
- **Proposer, co-ordinator and director** of several projects on the evaluation of mobility ;

- **Co-ordinator** of several papers on international mobility;
- **Proposer** of the **ERA-MORE** European centre in Trieste (European Network of Mobility Centres);
- **Proposer** of the **APRE** center of Trieste (Agency of the Promotion of European Research).

## ACTIVITIES WITHIN RESEARCH INSTITUTES

From 2002 to 2006 Maria Cristina Pedicchio has been President of **AREA Science Park**, appointed by a Decree of the President of the Italian Council of Ministries upon proposal of the Minister for Education, University and Research.

AREA is a National Research Institution of the Ministry of University and Research and manages the leading multi-sector science and technology park in Italy.

In its two campuses, the Park includes 84 centres, companies and institutions (61 are private), employing more than 1.700 people.

Among the different tenants are international centres such as ICS-Unido, International Centre for Science and High Technology, ICGEB – International Centre for Genetic Engineering and Biotechnology and Synchrotron Trieste (AREA is a major shareholder).

AREA's main sectors of activity are technology transfer, dissemination of innovation, the connection university – enterprise, training, science communication, scientific tourism, mobility of researchers.

Its mission is integrating research, training and innovation in an effective way by enhancing collaboration networks between public and private actors.

AREA is one of the first institutions in Italy as far as the attraction of resources is concerned. It has been calculated that in 2006 each euro allocated by the State has generated 1,3 euro of external orders.

During her presidency Maria Cristina Pedicchio has started a comprehensive innovation strategy by fostering initiatives such as : *Innovation Network* – network of 10 competence centres spread in the whole region, integrated services to support IP protection, patenting information and promotion of entrepreneurship, *Innovation Factory* – incubator, *Innovation Campus* – a national training programme for technology transfer brokers..

In order to cater for the realization of a dynamic and attractive “*knowledge community*”, attention is also dedicated to the quality of research and innovation places by promoting social and cultural initiatives (i.e. the opening of a nursery).

Great attention has also been dedicated to science and society, by starting successful initiatives such as the **Open Days** (more than 4.000 visitors in the 2006 edition), the series of conferences **AREA Nobel** (Amartya Sen, Lawrence Klein, Linda Buck, Arthur Kornberg, etc.), the **Science Café** series (Science, Music and Culture in a local café), initiatives for children (Science Caffe latte) and the **Social Budget**.

Maria Cristina Pedicchio was also the promoter of the **Coordination** of the national and international research centres operating in Trieste and in the Region Friuli Venezia Giulia, and of the creation of the **Technology District in Molecular Biomedicine** of the Region Friuli Venezia Giulia (National

Agreement signed in 2004 by the Minister of Education, University and Research and the President of the Region Friuli Venezia Giulia).

She is constantly invited as speaker at national and international meetings on innovation strategies and public-private collaborations.

## ACTIVITIES IN THE RIGHT TO ACADEMIC EDUCATION

As President of the Regional Institution for the Right to Academic Education in Trieste, and especially as National President of the Association of Institutions for the Right to Academic Education (ANDISU), Maria Cristina Pedicchio has encouraged very innovative initiatives for students. In particular:

- Support for traineeship activities to be carried out abroad;
- Creation and co-ordination of the international and academia-enterprise mobility centre “**MOVE- Mobilità ed orientamento verso l’Europa**” (*Mobility and guidance towards Europe*), with public and private financing
- Coordination of European projects on tutoring and multiculturalism
- Concrete initiatives on issues such as “quality of reception” – architectural/social projects for student residences
- Promotion and organization of international Summer Schools

She was appointed representative of the Ministry of Education, University and Research as expert in the working group for the review of the Law on the Right to Academic Education.

She participated as speaker to many conventions and debates on the right to education and on policies for young generations.

## PUBLICATIONS

Maria Cristina Pedicchio is **author** of more than fifty scientific papers in Mathematics – Algebra, published in internationally renowned journals. She has also published many articles on research and innovation policies and on human resources issues. Furthermore she is **editor** of several volumes.

A selection of papers follows. The complete list can be found at [www.dmi.units.it/~pedicchi/](http://www.dmi.units.it/~pedicchi/).

- Editor (with A.Carboni e G.Rosolini) of the *Proceedings of the Category Theory '90 Conference* Como, Lectures Notes in Mathematics 1488, Springer 1991.
- Editor of the volume "*Tutoring in a European dimension - The Role of The University Tutor to Develop the European Dimension*", Leonardo da Vinci Project, 2000.
- Editor of “*Categorical Foundations: Special Topics in Order, Topology, Algebra, and Sheaf Theory*”, Encyclopedia of Mathematics and its Applications, 2004, Cambridge University Press.
- “*Making Europe more attractive for Researchers*” Proceedings of the 19th Workshop of Marie Curie fellows: Research Training in Progress (Pisa/Livorno, 28-30 September 2005)

- With. M. Sticchi Damiani “*Esperienze di studio all'estero: competenze acquisite e competenze utilizzate nel mercato del lavoro*” in “IX indagine 2006 – Condizione occupazionale dei laureati” Consorzio Universitario AlmaLaurea ;
- “*La mobilità internazionale degli studenti universitari. Valutazione delle politiche ed esperienze innovative*”, edited by Giuseppe De Rita e di Anna Laura Trombetti Budriesi, 2006, Il Mulino.
- With N. Delai “*I Distretti Tecnologici: un modello di relazionalità per lo sviluppo. Il settore delle Scienze della Vita*” Collana Banca e Territorio, UniCredit Group, 2008
  
- with R. Wood “*A simple characterization of theories of varieties*”. J.of Algebra, 233 (2000), 483-501
- with J. Rosicky “*Localizations of varieties and quasivarieties*”. J. Pure Appl. Algebra, 148 (2000) 275 -284
- with E. Vitale “*On the abstract characterization of quasi-varieties*”. Algebra Universalis, 43 (2000), 269-278
- with G. Janelidze “*Pseudogroupoids and commutators*”. Theory and Applications of Categories, 8, (2001), 408-456
- with R. Wood “*A note on effective projectives*”. J. Pure Appl. Algebra, 158/1, (2001), 83-87
- with A. Carboni e J.Rosicky “*Syntactic characterizations of various classes of locally presentable categories*”. J. Pure Appl. Algebra, 161, 1-2, (2001), 65 -90
- with G. Dimov e G. Tironi “*Frames and grids*”. Applied Categorical Structures, 1 Vol. 12, (2004), 181-196
- with F. Rovatti “*Algebraic Categories*”. Categorical Foundations – Cambridge University Press 2004.

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*prof. Maria Cristina Pedicchio*

*Dip. di Matematica e Informatica*

**Università degli Studi di Trieste**

*Via Valerio 12, 34127 Trieste, Italy*

*tel. +39 040 5582648*

*fax +39 040 5582636*

*web: [www.dmi.units.it/~pedicchi/](http://www.dmi.units.it/~pedicchi/)*

*e.mail [pedicchi@univ.trieste.it](mailto:pedicchi@univ.trieste.it)*

**CBM Scrl**

*SS 14 km. 163,5 Basovizza*

*34012 Trieste – Italy*

*tel. +39 040 3757703*

*fax +39 040 3757710*

*web: [www.cbm.fvg.it](http://www.cbm.fvg.it)*

*e.mail [presidente@cbm.fvg.it](mailto:presidente@cbm.fvg.it)*

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