

**ADRIAN DUMA**

**SELECTED  
MATHEMATICAL PUBLICATIONS  
(1990 - 1998)**



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**(1968 - 2011)**

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**<http://www.angelfire.com/journal/mathematics>**

## **AFFILIATIONS**

- International Federation of Nonlinear Analysts (IFNA), since 1992.
- American Mathematical Society (AMS), since 1999.

I am also a reviewer for Zentralblatt fur Math.

## **RESEARCH GRANTS**

- University Jean Monnet of Saint-Etienne and ENS Lyon, France (January-June 1992)
- University Paris VI (Pierre et Marie Curie), France (1-31 May, 1998)
- University Paris VI (Pierre et Marie Curie), France (April-July 2000)

Also, in the summer of 1996, I participated with a 45-minutes invited talk at the Second World Congress of Nonlinear Analysts (WCNA-96), organized by IFNA in Athens (Greece)

## **Research Interests**

I think it is very difficult to evaluate a mathematician or a part of mathematics. There are a lot of beautiful things to be done in mathematics. And mathematics is, basically, individual. I don't believe you can do mathematics with a group.

I have no difficulty in doing mathematics, so when I do mathematics, I enjoy it. And therefore I'm always doing mathematics, because the other things I cannot do. There is nothing else I can do well. And I think this will be true throughout my life.

### **My main research interests are in:**

Nonlinear Functional Analysis

Axiomatic Topological Degree Theory

Nonlinear Evolution Equations

Bases in Banach Spaces

Nonlinear Operators of Monotone Type

## **COURSES**

Sobolev Spaces

Variational Problems

Spectral Methods for PDEs

Fourier Analysis

Semigroups of Operators

Semigroups of Operators and Evolution Equations

Semilinear Evolution Equations

Bifurcation Theory

## **SEMINARS**

Sobolev Spaces

Variational Problems

Spectral Methods for PDEs

Fourier Analysis

Semigroups of Operators

Semigroups of Operators and Evolution Equations

Semilinear Evolution Equations

Bifurcation Theory

Real Analysis

Functional Analysis

Complex Analysis

PDEs

Operator Theory

Mathematical Analysis

Nonlinear Analysis

## **Favorite quotations**

A mathematical theory is not to be considered complete until you have made it so clear that you can explain it to the first man whom you meet on the street. -- David Hilbert

The faculty is not a pool changing room. One can measure the importance of a scientific work by the number of earlier publications rendered superfluous by it. -- David Hilbert

Do not lose your faith. A mighty fortress is our mathematics.  
Mathematics will rise to the challenge, as it always has. -- Stan Ulam

One may be a mathematician of the first rank without being able to compute. It is possible to be a great computer without having the slightest idea of mathematics. -- Novalis

Brouwer's Theorem: Every function from  $[0,1]$  to  $\mathbb{R}$  is uniformly continuous.

No one shall expel us from the paradise that Cantor has created for us. -- David Hilbert

We do not believe that this world is created and ruled by a God. --  
The World Buddhist Council, Sri Lanka, 1966

### **Selected Earlier Publications (1990-1998)**

"Sums of contractions", An. Univ. Craiova Ser. Mat. Inform. 25 (1998), 19--23.

"A generalised homotopy theory", Proceedings of the Second World Congress of Nonlinear Analysts, Part 8 (Athens, 1996). Nonlinear Anal. 30 (1997), no. 8, 4937--4948.

"Zeeman's theorem in nondecomposable spaces", J. Korean Math. Soc. 34 (1997), no. 2, 265--277.

"Mappings which preserve the topological degree", Stud. Cerc. Mat. 48 (1996), no. 5-6, 313--318.

"On the embedding of degree theories", An. Univ. Craiova Ser. Mat. Inform. 23 (1996), 28--35 (1998).

"Degree theory from an axiomatic viewpoint", Stud. Cerc. Mat. 46 (1994), no. 3, 339--346.

"Banach spaces with topological degree", An. Univ. Craiova Ser. Mat. Inform. 20 (1993), 31--43 (1995).

"Applications in the Browder-Petryshyn degree theory. Surjectivity theorems", (Romanian) An. Univ. Craiova Ser. Mat. Inform. 19 (1991/92), 21--25 (1994).

"A surjective topological degree for discontinuous functions", An. Univ. Craiova Ser. Mat. Inform. 19 (1991/92), 26--28 (1994).

"On the isometric theory of indefinite inner product spaces", An. Univ. Craiova Ser. Mat. Inform. 18 (1990), 18--26.



**ANALELE UNIVERSITĂȚII DIN CRAIOVA**  
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**Vol. XXV, 1998**

<b>SOME SUFFICIENT CONDITIONS FOR UNIVALENCE OF A LARGE CLASS OF FUNCTIONS</b>	
Horiana OVESEA .....	1
<b>THE APPLICATIONS OF FUZZY METHODS TO ENVIRONMENTALLY COMPATIBLE PRODUCTION IN MANUFACTURING INDUSTRY</b>	
M. HERSH, I. HAMBURG, P. HAMBURG .....	8
<b>THE GAUSS MEAN IN ABELIAN <math>C^*</math>-ALGEBRAS</b>	
Alexandru LEONTE and Aristide LEONTE .....	16
<b>SUM OF CONTRACTIONS</b>	
Adrian DUMA .....	19
<b>SOME PROPERTIES OF UPPER AND LOWER WEAKLY CONTINUOUS MULTIFUNCTIONS</b>	
Valeriu POPA and Takashi NOIRI .....	24
<b>A GENERALIZATION OF THE APPROXIMATION SPACES</b>	
Nicolae TIȚA .....	31
<b>TRAJECTORY STRUCTURE NEAR CRITICAL POINTS</b>	
Monica ROȘIU .....	35
<b>REMARKS ABOUT M-ACCRETIVE OPERATORS ON BANACH REFLEXIVE SPACES</b>	
Liliana BUCUR and Octavian MUSTAFA .....	45
<b>PERTURBATION LEMMAS IN BANACH SPACES</b>	
Octavian MUSTAFA and Mirel COȘULSCHI .....	53
<b>MULTIVALUED OPERATORS, FIXED POINTS AND MAXIMAL ELEMENTS</b>	
Aurel MUNTEAN .....	61
<b>THE GAUGE INVARIANCE IN RELATIVE TANGENT SPACES</b>	
Vladimir SLESAR .....	68
<b>UNE MÉTHODE D'AJUSTEMENT DU PAS DANS LA RÉOLUTION NUMÉRIQUE D'ÉQUATIONS DIFFÉRENTIELLES</b>	
Romulus MILITARU .....	81
<b>A NUMERICAL CONVEXITY INVARIANT FOR PLANE DOMAINS</b>	
Petre BĂZĂVAN and Mihaela STERPU .....	87
<b>AN ALGEBRAIC APPROACH OF KNOWLEDGE REPRESENTATION</b>	
Nicolae ȚĂNDĂREANU .....	93

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**VOLUMUL XXV**



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