

## **AMUCHMA 30 (CONTINUED)**

**This version of issue 30 has been split into four parts  
30.1, 30.2, 30.3, and 30.4. This is 30.4**

## **AMUCHMA 30 (CONTINUED)**

### **Swaziland**

J. Thuli NHLENGETFWA (Female)

1993 (Ph.D.) *The impact of mathematics/science inservice teacher education programs on the Manzini region (Swaziland) elementary schools*, Ohio University (USA).

Melusi KHUMALO (Male)

1998 (Ph.D.) *Dynamics of Numerics of Linearized Collocation Methods*, Memorial University of Newfoundland (Canada); Advisor: E. Andrew Foster.

Gcina DLAMINI (Female)

2003 (Ph.D.) *Aspects of Distances in Graphs*, University of Natal (Durban, South Africa); Advisors: Peter Dankelmann & Hendrika Swart.

## **Tanzania**

Ali Seif A. MSHIMBA (b. 31.01.1948) (Male)

1979 (Dr.rer.nat.) *Konstruktion von Lösungen nichtlinearer elliptischer Differential-gleichungssysteme erster Ordnung in der Ebene durch komplexe Methoden im Sobolev - Raum  $W^{1,p}$  (G) (insbesondere Lösung des Dirichlet - Randwertproblems mit Randwerten aus dem Slobodeckij - Raum  $W^{s,p}$  (L),  $s = 1 - 1/p$ )* [Construction of Solutions of Nonlinear Systems of Elliptic Differential Equations of First Order in the Plane Using Complex Methods in the Sobolev Space  $W^{1,p}$  (G) ( in Particular the Solution of the Dirichlet Boundary Value Problem with Boundary Values from the Slobodeckij Space  $W^{s,p}$  (L),  $s = 1 - 1/p$  )], Martin Luther University (Halle - Wittenberg, Germany); Advisor: Wolfgang Tutschke.

Godfrey C. MUGANDA (b. 1957) (Male)

1984 (Ph.D.) *Optimality Conditions for Mixed Constraint Problems*, Lehigh University (Bethlehem PA, USA); Advisor: Murray Schechter.

Verdiana Grace MASANJA (b. 12.10.1952) (Female)

1986 (Dr.-Ing.) *A Numerical Study of a Reiner-Rivlin Fluid in an Axi-Symmetrical Circular Pipe*, Technical University of Berlin (West Berlin, Germany); Advisors: Wolfgang Mushick, Gert Brunk & Heinrich Fiedler.

Ralph MASENGE (Male)

1988 (Ph.D.) *Finite elements for time-dependent convection-diffusion problems*, University of Nijmegen (Netherlands); Advisor: A. O. H. Axelsson.

Luckson Muganyizi KAINO (b. 26.03.56) (Male)

1994 (Dr.rer.nat.) *Curriculum and Modelling in numerical analysis at high school and undergraduate levels*, University of Salzburg (Austria); Advisor: Karl Parisot.

Allen R. MUSHI (Male)

1997 (Ph.D.) *Application of the Theory of polyhedral Combinatorics to the Resource Levelling Problem*, Dublin City University (Ireland); Advisor: M. O'hEigearthaigh.

Yousif Ahmed IBRAHIM (Male)

1997 (Ph.D.) *Investigation and development of analytical and numerical solutions to the various components of physically-based distributed catchment models*, University of Dar es Salaam (Tanzania); Advisor: Ralph Masenge.

Grayson K. KAKIKO

1998 (Ph.D.) *Approximation by Algebras of Smooth Functions*, National University of Ireland; Advisor: Anthony O'Farrell.

Joyce R. MGOMBELO (Female)

2002 (Ph.D.) *Mathematics content-pedagogy knowledge: a psychoanalytic and enactivist approach*, University of Alberta (Canada); Advisor: Terry Carson.

## Tchad

Koina RODOUMTA (b. 1955) (Male)

1987 (Ph.D.) *Méthode de construction d'une famille de fonctions de controlabilité pour les systèmes contrôlables*, University of Kharkov (ex-USSR); Advisor: A. P. Marinitch.

Allahtan Victor GNEDBAYE

1995 (Doctorat) *Sur l'homologie des algèbres de Leibniz. Opérades des algèbres k-aires*, Université Louis Pasteur (Strasbourg, France); Advisor: Jean-Louis Loday.

## Togo

Pascal Kossivi ADJAMAGBO (b. 1956) (Male)

1981 (Doctorat 3ème cycle) *Déterminant non-communicatif et systèmes différentiels* [Skew determinant and differential systems], Université de Paris 6 (France); Advisor: Jean Vaillant.

1991 (Doctorat d'état) *Fondements de la théorie des déterminants sur un domaine de Ore* [Fundaments of the theory of determinants on an Ore domain], Université de Paris 6 (France); Advisor: Jean Vaillant.

Koffi-Marius DORKENOO (Male)

1992 (Doctorat d'université) *Etude de modèles avec interactions multiplicatives en analyse de la variance*, Université Paul Sabatier (Toulouse, France); Advisor: J. R. Mathieu.

Koffi B. FADIMA (Male)

1993 (Ph.D.) *Regularization and Numerical Methods for a Class of Porous Media Equations*, University of South Carolina (USA); Advisor: Robert Sharpley.

Kokou Yano L. D. ABALO (b. 28.09.1955) (Male)

1994 (Ph.D.) *Berge and Nash Games: Existence Theorems and Applications*, Clemson University (SC, USA); Advisor: Michael M. Kostreva.

Kinvi KANGNI (b. 24.07.1958) (Male)

1994 (Doctorat 3ème cycle) *Transformation et Représentation Sphériques de type S* [Spherical transformation and representation of type S], Université de Cocody (Abidjan, Côte d'Ivoire); Advisor: Saliou Touré.

2000 (Doctorat d'état) *Distribution et Transformation de Fourier Sphériques de type S* [Spherical distribution and Fourier transformation of type S], Université de Cocody (Abidjan, Côte d'Ivoire); Advisor: Saliou Touré.

Amah Séna D'ALMEIDA (b. 14.02.63) (Male)

1995 (Doctorat) *Etude des solutions des équations de Boltzmann discrètes et applications* [Study of solutions of discrete Boltzmann equations and applications], Université de Paris 6 (France); Advisor: Renée Gatignol.

Angelo Efoevi KOUDOU (Male)

1995 (Doctorat d'université) *Problèmes de marges et familles exponentielles naturelles*, Université Paul Sabatier (Toulouse, France); Advisor: G. Letac.

Kodjo MAWOUSSI

1996 (Doctorat) *Conditions de Whitney et variétés polaires en géométrie analytique réelle*, Ecole Normale Supérieure (Paris, France); Advisor: Bernard Teissier.

Horatio M. QUADJOVIE (Male)

1999 (Ph.D.) *Deformation par le flot de courbure moyenne modifiée d'hypersurfaces de révolution s'appuyant sur un cône*, Institut de Mathématiques et de Sciences Physiques (Porto Novo, Benin).

Kokou DOSSOU (b. 1966) (Male)

2000 (Ph.D.) *Résolution numérique des équations de Von Kármán* [Numerical solution of Von Kármán equations], Université Laval (Québec, Canada); Advisor: Roger Pierre.

Yébéri Batidao KOUAGOU

2000 (Ph.D.) *Transformations en ondelettes discrètes : une approche utilisant des pseudodilatations*, Institut de Mathématiques et de Sciences Physiques (Porto Novo, Benin).

Bernardin KPAMEGAN (Male)

2000 (Ph.D.) *Géométrie non commutative sur des algèbres de dimensions finies*, Institut de Mathématiques et de Sciences Physiques (Porto Novo, Benin).

Carlos Simplice OGOUYANDJOU (Male)

2000 (Ph.D.) *Géométrie asymptotique des variétés de type hyperbolique*, Institut de Mathématiques et de Sciences Physiques (Porto Novo, Benin).

Eugène C. EZIN (Male)

2001 (Ph.D.) *Neural Networks and Neural Fuzzy Systems for Speech Applications*, Institut de Mathématiques et de Sciences Physiques (Porto Novo, Benin).

Claude Messan SETODJI

2003 (Ph.D.) *Multivariate Dimension Reduction and Graphics*, University of Minnesota (Minneapolis, USA); Advisor: R. Dennis Cook.

## Tunisia

Mohamed SOUSSI (b. 1915) (Male)

1969 (Doctorat d'état) *La langue des mathématiques en arabe* [Arabic mathematical language], Université de la Sorbonne (Paris, France); Advisor: Charles Pellat.

Mahdi ABDELJAOUAD (b. 1942) (Male)

1970 (Ph.D.) *On automorphisms and derivations of algebras* [A propos des automorphismes et des derivations des algebras], University of Washington (Seattle, USA); Advisor: James Jans.

Haïm BRÉZIS

1972 (Ph.D.) *Problèmes unilatéraux*, Université de Paris (France); Advisor: Gustave Choquet.

Mohamed JAOUA (Male)

1983 (Doctorat d'état) *Analyse mathematique et numerique de quelques problemes en mecanique de la rupture*, Université Pierre et Marie Curie (Paris, France); Advisor: William Cody.

Assia LAGHA-BENABELLAH

1989 (Doctorat) *Problèmes aux limites pour des E.D.P. hyperboliques non linéaires*, Université des Sciences et de la Technologie Houari Boumedienne (Tunis, Tunisia).

Boubakeur MEROUANI

1990 (Doctorat) *Comportements singuliers des solutions du système de l'élasticité dans un polygone*, Université des Sciences et de la Technologie Houari Boumedienne (Tunis, Tunisia).

Noureddine SASSI (b. 1944) (Male)

1993 (Doctorat d'état) *Représentation de l'autre et de soi par rapport à la langue maternelle et aux mathématiques dans le premier cycle de l'enseignement secondaire tunisien* [Representation of the other and of the self in relationship to the mother tongue and mathematics in the first level of the Tunisian secondary school], Université de Nantes (France).

Hanène HATTAB ABROUGUI (b. 1969) (Female)

1998 (Doctorat 3ème cycle) *La démonstration en géométrie dans l'enseignement secondaire tunisien : exigences d'enseignants et difficultés d'élèves de 4ème relativement à un problème de démonstration* [Proof in geometry in the Tunisian secondary school: teachers' demands and 4<sup>th</sup> grade pupils difficulties concerning a type of proof], Université de Grenoble 1 (France); Advisor: Colette Laborde.

Mohameden Ould AHMEDOU (Male)

1998 (Ph.D.) *Contribution topologique des "points critique à l'infini" dans un probleme variationnel noncompact*, Université de Tunis (Tunisia); Advisor: Abbas Bahri.

Mohamed Ben AYED (Male)

1998 (Ph.D.) *Prescribed Scalar Curvature Problem and Related Topics*, Université de Tunis (Tunisia); Advisor: Abbas Bahri.

Khalil El MEHDI (Male)

1998 (Ph.D.) *Sur un probleme variationnel non compact*, Université de Tunis (Tunisia); Advisor: Abbas Bahri.

Hammami MOKHLES

1998 (Ph.D.) *Morse Lemma at Infinity and Related Topics*, Université de Tunis (Tunisia); Advisor: Abbas Bahri.

Mohamed Ekbal BOUZGARROU (Male)

1998 (Doctorat) *Parallélisation de la méthode du “Branch and Cut” pour résoudre le problème du voyageur de commerce*, Institut National Polytechnique de Grenoble (France); Advisor: Denis Naddef.

Mondher TANGOUR (b. 1956) (Male)

1999 (Doctorat 3ème cycle) *Analyse des acquisitions des élèves en mathématiques et en sciences en première année de collège tunisien* [Analysis of the acquisitions in mathematics and science by the pupils of the first year of the Tunisian high school], Université de Bourgogne (France); Advisor: Jean-Pierre Jarousse.

Ridha SFAXI (b. 17.03.1967) (Male)

2001 (Doctorat 3ème cycle) *Les suites de polynômes diagonales par rapport à  $x-c$*  [Diagonal polynomial sequences with respect to x-c], Faculté des sciences de Sfax (Tunisia), Advisors: Pascal Maroni & Jilani Alaya.

Mohamed Habib MARSIT (Male)

2001 (Doctorat d'état) *Approche psychocognitive diagnostique des difficultés d'apprentissage des mathématiques* [Diagnostic psycho-cognitive approach to learning difficulties in mathematics], Université de Tunis (Tunisia); Advisor: Noureddine Sassi.

Essahbi EL AMRI (Male)

2001 (Doctorat 3ème cycle) *Implicit et évidence dans l'enseignement et l'apprentissage de la démonstration en géométrie euclidienne plane au collège* [Implicit and evidence in the teaching and learning of the proof in Euclidian plane geometry in high school], Université Claude Bernard (Lyon, France); Advisor: Claude Tisseron.

Marouane BEN MILED (b. 1965) (Male)

2003 (Doctorat) *Les commentaires arabes au Livre X des Eléments d'Euclide, jusqu'au XII<sup>e</sup> siècle* [Arabic commentaries on Book X of Euclid's Elements, up to the XII<sup>th</sup> century], Université Denis Diderot (Paris, France); Advisor: Roshdi Rashed.

Faïza CHELLOUGUI (b. 1965) (Female)

2004 (Doctorat) *L'utilisation des quantificateurs universel et existentiel en première année universitaire, entre l'explicite et l'implicite* [Using universal and existential quantifications in first year university, switching between explicit and implicit usages], co-tutelle: Université de Tunis

(Tunis, Tunisia) & Université Claude Bernard (Lyon, France); Advisors: Mahdi Abdeljaouad & Claude Tisseron.

## **Uganda**

Ben KIREGYERA (Male)

1984 (Ph.D.) *On use of auxiliary information in sampling for some skewes and non-skewed populations*, University of Essex (UK).

Christopher MAWATA (Male)

1987 (Ph.D.) *Schauder Estimates and Existence Theory for Entire Solutions of Linear Parabolic Equations*, University of Hawaii (Honolulu, Hawaii); Advisor: Gerald Hile.

Margaret NABASIRYE (Female)

1995 (Ph.D.) *Statistical inferences on insect pest resistance indices: implications for selection in crop plants*, Makerere University (Kampala, Uganda).

Joseph Y. T. MUGISHA (Male)

1999 (Ph.D.) *Mathematical models for the study of the spread of HIV/AIDS pandemic in (age-) structured populations*, Makerere University (Kampala, Uganda).

Venasius BARYAMUREEBA (b. 18.05.1969) (Male)

2000 (Ph.D.) *On solving large sparse linear systems arising from linear programming and linear regression*, Universitetet i Bergen (Norway); Advisor: Trond Steihaug.

Vincent Aloysius SSEMBATYA (b. 27.05.1968) (Male)

2001 (Ph.D.) *Homeomorphisms of Knaster Continua*, University of Florida (Gainesville, Florida, USA); Advisor: James Keesling.

John Magero MANGO (Male)

2001 (Ph.D.) *Boundary element methods in acoustics*, Makerere University (Kampala, Uganda).

Besigye Bafaki GAD (01.04.1958) (Male)

2002 (Ph.D.) *Mathematical Models for the Study of Schistosomiasis Dynamics in a Ugandan Community*, Makerere University (Kampala, Uganda); Advisor: Livingstone Luboobi.

Saul Hannington NSUBUGA (Male)

2003 (Ph.D.) *The Geometry of Immobilizing Sets of Objects* University of Edinburgh (UK); Advisor: Elmer Rees.

Rebecca Namugabwe NSUBUGA (Female)  
2004 (Ph.D.) *Statistical inference for infectious disease of animals*, University of Edinburgh (UK).

Immaculate Kizito NAMUKASA (b. 07.07.1972) (Female)  
2004 (Ph.D.) *Attending in Mathematics: A Dynamic View about Students' Thinking*, University of Alberta (Edmonton, Alberta, Canada); Advisor: Elaine Simmt.

Charles OPOLOT-OKURUT (b. 15.02.1954) (Male)  
2004 (Ph.D.) *Attitudes towards Mathematics, achievement in Mathematics Aptitude Problems and Concomitant Teacher practices in Ugandan Secondary Schools*, University of the Western Cape (Bellville, South Africa); Advisor: Cyril Julie.

Gerald G. WANJALA (b. 05.03.1966) (Male)  
2005 (Ph.D.) *The Schur transform of a generalized Schur function and operator realizations*, Rijks Universiteit Groningen (Netherlands); Advisor: Aad Dijksma.

### **Zambia**

Patrick Azele PHIRI (b. 25.11.1951) (Male)  
1979 (Ph.D.) *Equilibrium points and control problems in dynamic urban modelling*, University of Leeds (UK); Advisors: F. A. Goldworthy, A. G. Wilson & J. Rubio.

Matthew KAMBULE (Male)  
1986 (Ph.D.) *The Hotta Complex*, University of Massachusetts (Amherst MA, USA); Advisor: Hans Fischer.

Chiteng'a John CHIKUNJI (b. 14.1.1962) (Male)  
1996 (Ph.D.) *On the classification of finite rings*, University of Reading (UK); Advisor: Basil Corbas.

Amos BANDA (Male)  
1998 (Ph.D.) *A Nonresponse Problem with Some Follow-up Data Using Subsampling and Double Sampling Approaches*, University of Iowa (USA); Advisor: Leon Burmeister.

### **Zimbabwe**

Heneri Amos Murima DZINOTYIWEYI (b. 15.03.1950) (Male)  
1978 (Ph.D.) *Equi-regular Measures and Measures continuous under Translation on Topological Semigroups*, University of Aberdeen (UK); Advisor: Alan T. Paterson.

Josephat Martin HARVEY (Male)  
1979 (Ph.D.) *Factorisations, auto-triviality, Pseudo-topological functors and Topology*, University of Zimbabwe (Harare, Zimbabwe).

Matoteng M. NCUBE (b. 04.02.1953) (Male)  
1984 (Ph.D.) *Some Statistical Quality Control Techniques*, University of Louisiana (Lafayette, USA); Advisor: Bill Woodall.

David Kufakwami Jani MTETWA (b. 1953) (Male)  
1991 (Ph.D.) *An investigation of Zimbabwean secondary school students' mathematical beliefs and classroom contexts*, University of Virginia, (Charlottesville, Virginia, USA); Advisor: Joseph Garofalo.

Temba SHONHIWA (b. 25.5.1958) (Male)  
1996 (Ph.D.) *Investigations of Number Theoretic Functions*, West Virginia University (Morgantown, Virginia, USA); Advisor: Henry W. Gould.

Anotida MADZVAMUSE (Male)  
2000 (D.Phil.) *A Numerical Approach to the Study of Spatial Pattern Formation*, University of Oxford (UK); Advisor: Philip Maini.

### 3. Examples of African Mathematical Pioneers in the 20<sup>th</sup> Century

(updated version of Appendix 7 of: Gerdes, Paulus & Djebbar, Ahmed: *Mathematics in African History and Culture: An Annotated Bibliography*, African Mathematician Union, Cape Town, 2004, pp. 225-226)

Mohamed Akkar (Morocco)  
Daniel Afedzi Akyeampong (Ph.D. 1966) (Ghana)  
Morris Sika Alale (d. 1995) (Kenya)  
Francis Kofi Ampenyia Allotey (b. 1931) (Ph.D. 1966) (Ghana) \*  
Mohamed Amara (Tunisia)  
Attia Abdel Salam Ashour (b. 1924) (Egypt)  
Augustin Banyaga (b. 1947) (Ph.D. 1976) (Rwanda) \*  
Benali Benzaghou (Ph.D. 1969) (Algeria) \*  
Mohammed Tidjani Boudjelkah (Ph.D. 1970) (Algeria)  
Chan Feng Chan Man Fong (b. 1938) (Ph.D. 1965) (Mauritius)  
Mohamed Djeddour (Ph.D. 1970) (Algeria)  
Heneri Amos Murima Dzinotyiweyi (b. 1950) (Ph.D. 1979) (Zimbabwe)  
Mohamed El Amin El Tom (b. 1941) (Ph.D. 1969) (Sudan) \*  
Philip Emeagwali (b. 1954) (Nigeria)  
George Eshiwani (Ph.D. 1974) (Kenya)

James Okoye Chukuka **Ezeilo** (Ph.D. 1959) (Nigeria)  
Jean-Pierre **Ezin** (b. 1944) (Ph.D. 1981) (Benin) \*  
Caleb **Gattegno** (1911-1988) (Ph.D. 1937) (Egypt)  
Khélifa **Harzallah** (Tunisia)  
Mohamed H. A. **Hassan** (Sudan)  
Henri **Hogbe-Nlend** (Cameroon)  
Ahmed **Jebli** (Morocco)  
Overtoun **Jenda** (b. 1954) (Ph.D. 1981) (Malawi) \*  
Désiré **Karangwa** (b. 1952) (Ph.D. 1988) (Rwanda)  
Idriss **Khalil** (Morocco) \*  
Akry **Koulibaly** (Burkina Faso)  
Aderemi Oluyomi **Kuku** (b. 1941) (Ph.D. 1971) (Nigeria)  
Lennox Samuel Onipede **Liverpool** (b. 1946) (Ph.D. 1971) (Sierra Leone)  
Edward **Lungu** (b. 1950) (Ph.D. 1980) (Zambia)  
Verdiana G. **Masanja** (Tanzania) \*\*\*  
Ralph W. P. **Masenge** (Ph.D. 1988) (Tanzania)  
Leila **Moalla** (Tunisia) \*\*\*  
Ismael Jacob **Mohamed** (b. 1930) (Ph.D. 1960) (South Africa) \*\*  
Geoffrey Raphael Vehaeli **Mmari** (Tanzania) \*  
Moshe **Molelekoa** (b. 1942) (Ph.D. 1982) (Lesotho) \*  
Ali Mostafa **Mosharafa** (1898-1950) (Ph.D. 1923, D.Sc. 1924) (Egypt) \*  
Paul **Mugambi** (Uganda) \*  
Benjamin **Mweene** (Ph.D. 1970) (Zambia) \*  
John Nguthu **Mutio** (Kenya)  
Gaston Mandata N'guerekata (b. 1953) (Ph.D. 1980) (Central African Republic) \*  
Souleymane **Niang** (b. 1929) (Senegal)  
Georges Edward **Njock** (b. 1940) (Ph.D. 1970) (Cameroon)  
Loyiso **Nongxa** (b. 1954) (Ph.D. 1982) (South Africa)  
Joachim **Nzotungicimpaye** (Ph.D. 1986) (Burundi)  
Chike Edozien Umuezi **Obi** (b. 1921) (Ph.D. 1950) (Nigeria)  
Wandera **Ogana** (b. 1946) (Ph.D. 1975) (Kenya)  
Adegoke **Olubummo** (1923-1992) (Ph.D. 1955) (Nigeria)  
Albert Ouedraogo (b. 1935) (Ph.D. 1969) (Burkina Faso) \*  
Jan **Persens** (b. 1946) (Ph.D. 1986) (South Africa)  
Patrick **Phiri** (b. 1951) (Ph.D. 1979) (Zambia)  
Batmanathan Dayanand **Reddy** (b. 1953) (Ph.D. 1977) (South Africa)  
George **Saitoti** (b. 1944) (Ph.D. 1971) (Kenya) \*  
Daouda **Sangaré** (b. 1943) (Ph.D. 1977) (Mali) \*  
Hamet **Seydi** (Senegal)  
Juma **Shabani** (Ph.D. 1986) (Burundi) \*  
Saliou **Touré** (Côte d'Ivoire) \*  
Grace Alele **Williams** (Nigeria) \*\*\*  
Mohamed **Zitouni** (Ph.D. 1973) (Algeria)

\* First Ph.D. in mathematical sciences of the respective country

\*\* First black South African to have obtained a Ph.D. in mathematics.

\*\*\* First female Ph.D. in mathematical sciences of the respective country

#### **4. DO YOU WANT TO RECEIVE THE NEXT AMUCHMA-NEWSLETTER?**

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C.P. 915, Maputo, Mozambique (E-mail: pgerdes@virconn.com)

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or to the Secretary

Ahmed Djebbar: Département de mathématiques, Bt. M 2, Université de  
Lille 1, 59655 Villeneuve D'Ascq Cedex, France  
(Fax: 33-1-45 33 77 12; E-mail: ahmed.djebbar@math.univ-lille1.fr,  
Ahmed.Djebbar@wanadoo.fr)

for the **French** and **Arabic** versions.

#### **5. AMUCHMA-NEWSLETTER website**

Thanks to Scott Williams, the English language edition of all issues of the **AMUCHMA Newsletter** is also accessible on the following website:

[http://www.math.buffalo.edu/mad/AMU/amuchma\\_online.html](http://www.math.buffalo.edu/mad/AMU/amuchma_online.html)