

Professeur RAOELINA ANDRIAMBOLOLONA

Professeur Titulaire de classe exceptionnelle
Faculty of Sciences - University of Antananarivo - Madagascar
Founding Director General of the 'Institut National des Sciences et Techniques Nucléaires'.
Madagascar INSTN,
**Executive President of the Commission RAOELINA
ANDRIAMBOLOLONA pour la Nanotechnologie (CORANANO)**

OTHER PRESENT SITUATION

- National Liaison Officer for RAF, AFRA and **International Atomic Energy Agency (I.A.E.A.)** projects, Madagascar
- National Co-ordinator for **African Regional Agreement for the development, research, and training in the field of Nuclear Science and Technology (AFRA)**
- President of AFRA – Field Management Committee (AFRA-FMC) (sept 2001)
- Executive President of the Commission Raelina Andriambololona pour la Nanotechnologie (CORANANO)

WORK EXPERIENCES

On national level

- Chairman of the Physics Department, Antananarivo Faculty of Science, University of Madagascar from 1969 to 1988 and during his mandate
- has developed the Observatory of Antananarivo, Madagascar
- has renewed, with the assistance of the **University of Aix-Marseilles**, the Physics Practical Training for undergraduate students with micro-computers.
- opened in 1969, one year after his home arrival, the first level of Graduate Study in Physics in Madagascar
- opened in 1976, the first education in Master' degree for Nuclear and Applied Physics whose success brought other skeptic colleagues to take the same way. Since then, eight other options have been opened
- Founded in 1976, from scratch (no researchers, no technicians, no laboratory-room) the Laboratoire de Physique Nucléaire et de Physique Appliquée (L.P.N.P.A.) with both the assistance of the Ministry of Higher Education and the I.A.E.A. The laboratory became national and international in scope. Due to its development, it was transformed into Institut National des Sciences et Techniques Nucléaires (I.N.S.T.N.) sixteen years later, in 1992, according to a Malagasy government decree. The laboratory has trained 43 % of the teaching staff of the present Physics Department
- Scientific Advisor to the President of Madagascar Republic (1986 – 1991)

International experiences

- Member of the United Nations for Education, Science and Culture Organization (**UNESCO**) Advisory Committee for the promotion and the teaching of Science and Technology in Africa in personal capacity(1984- 1988)
- **I.A.E.A.** Expert Advisor on personal capacity
- Former member of the **I.A.E.A.** board of Governors for Madagascar (1984 -1986)

- Economical Commission for Africa (E.C.A.) and African Organization Unity (A.O.U.) Expert Advisor for the peaceful uses of Nuclear Energy in Africa
- Was a funding member of National Co-ordinator for AFRA
- United Nations for Development Program (U.N.D.P.) Expert Advisor for the National Long Term Prospective System (N.L.T.P.S.) Madagascar 2030 vision (1995)
- Fulbright Exchange Professor, Winsconsin-Milwaukee University, Winsconsin U.S.A.(1974)
- Guest Scientist of International Centre for Theoretical Physics (ICTP), I.A.E.A. - UNESCO, Trieste, Italy, 1978
- Centre National de la Recherche Scientifique (C.N.R.S.) former “chargé de recherche”, in Theoretical Physics Division, Theoretical Physics Centre of Marseille, France (1962-1968)
- Associate Professor at the Saint-Charles Faculty of Science, University of Provence, Marseilles, France (1982)
- Course Director of the Interregional Training Course on Interfacing in Nuclear Experiments, Antananarivo, Madagascar October-December 1991, organized by the I.A.E.A. and the L.P.N.P.A for confirmed researchers of different Nuclear Centres from the five continents.
- Director of the Second Meeting on Regional Cooperation in Radiation Protection in Africa, Antananarivo, Madagascar, May 1994
- Principal organizer of the First National Colloquium on Radiation Protection, Antananarivo, Madagascar, November 1995
- Course Director of the Regional Training Course on “Notification, Registration, Licensing and Control of Ionizing Radiation Sources”, organized by IAEA and INSTN, Antananarivo, Madagascar, October 1995

SECTORS OF INTEREST

- Elementary Particles Physics (compound models) - Quantum Fields Theory - Relativity - Quantum Mechanics
- Nuclear Physics - X-ray Fluorescence Analysis - Spectroscopy Analysis of radioactive and non-radioactive Malagasy ores
- Radiation Protection - Environmental Study (Industrial pollution, air pollution, water pollution, soil pollution, environmental radioactivity, deforestation, ...)
- Linear and multilinear Algebra
- Fractional derivatives and integrals
- Problem of Science and Technology Transfer
- Problem of Development in developing countries (definition of the development, endogenous development, sustainable development, human development, ...)
- Teaching and Development of Science and Technology in developing countries (use of native language, scientific olympiads, ...)
- History of Madagascar
- Nanoscience and nanotechnology

AFFILIATION TO SCIENTIFIC COMPANIES

- Member of the Third World Academy of Science (TWAS), Trieste, International Centre for Theoretical Physics (ICTP) - elected in 1985
- Former founding Vice-President of African Academy of Science (AAS), Nairobi, Kenya 1985
- Member of the New York Academy of Science, U.S.A.
- Member of the American Physical Society
- Member of the European Physical Society
- Member of the “Société Française de Physique”.
- Member of the Executive Committee of the Society of African Physicists and Mathematicians (SAPAM), Legon, Accra, Ghana
- Former Member of the Pan African Pugwash Group Executive Committee, Cairo
- Member of the alumni and friends of C.N.R.S. Association, France

- Vice-president of the Third Section (Basic Science Section) of the Academy of Arts, Humanities and Sciences, Malagasy Academy, Antananarivo, Madagascar
- Founding President of the “Société Malgache des Sciences Physiques” (S.M.S.P.) and the “Plenum pour l’Energie Nucléaire et ses Utilisations à Madagascar” (PLENUM)
- Founding President of the Malagasy Association for Radiation Protection (1996)
- Founding President of the TWAS Madagascar Chapter
- Member of the International Radiation Protection Association (IRPA)
- Member of the Advisory Committee for the promotion and the teaching of Science and Technology in Africa in personal capacity (1984- 1988) of the the United Nations for Education, Science and Culture Organization (UNESCO)
- Expert of Economical Commission for Africa (ECA), Addis Ababa, Ethiopia
- Member of the Malagasy Commission of Ethics for Science and Technologies (CMEST), Antananarivo, 2007.

HONORIFIC AWARDS

- Grand Croix de 2ème classe de l’Ordre National Malagasy (June 26, 1997)
- Commandeur de l’Ordre du Mérite de Madagascar (June 26, 1991)

CONFERENCE ATTENDANCE

Participation in conferences, symposiums or colloquies throughout the world (more than hundred)

- In Europe: France, Germany, Italy, Spain, Switzerland, Austria, Greece, former Yougoslavia, Hungary, Portugal, former S.S.R.U. (Leningrad, Moscow, Kiev, Akademgorodok-Siberia)
- In Asia: India (Calcutta, Madras, Bombay, New Delhi), China (Beijing, Tianjing), Malaysia (Kuala Lumpur)
- In Africa: Algeria, Egypt, Ethiopia, Ghana, Ivory Coast, Kenya, Morocco, Nigeria, Senegal, South Africa, Tanzania, Tunisia, Uganda, Zaire, Zambia.
- In Latin America: Brazil (Rio de Janeiro, Sao Paolo), Mexico
- In North America:
 - In U.S.A.: New York, Washington D.C., Los Angeles (U.C.L.A.), San Francisco (Berkeley), Boston (MIT), Milwaukee (Madison University), Chicago (Argonne National Laboratory)
 - In Canada: Quebec, Montreal

SCIENTIFIC PUBLICATIONS - BOOKS

- More than one hundred and twenty (120) scientific Publications in the “Comptes Rendus de l’Académie des Sciences.” (C.R.A.S.), Paris-France - Les Annales de L’Institut Henri Poincaré, Paris-France - Nuovo Cimento, Italy - Progress of Theoretical Physics, Japan - Bulletin of Malagasy Academy, Madagascar - I.A.E.A. Publication, Vienna-Austria - Annals of the University of Madagascar
- Edition, LIRA collection (Livre interdiscipline RAOELINA ANDRIAMBOLOLONA)
- Edition, CIRA collection (Cahier interdiscipline RAOELINA ANDRIAMBOLOLONA)
- Books of University level (undergraduate study, graduate study, master's degree research)
- Linear and multilinear Algebra, 3 tomes, LIRA Madagascar, 1977
- Quantum Mechanics, 1 tome, LIRA Madagascar, 1990
- Analytical Mechanics, CIRA, Madagascar, 1993

EDUCATION

- University of Madagascar (1956)
- University of Aix Marseilles, Saint-Charles Faculty of Science (1956-1962)
- Centre National de la Recherche Scientifique (CNRS) - Centre de Physique Théorique de Marseille (CPT) (1962-1968)
- Licence ès Sciences, Mathématiques pures (1957)
- Licence ès Sciences, Mathématiques Appliquées (1958)
- Diplômé d'études supérieures des Sciences Mathématiques (1958)
- Docteur de 3è cycle, option Physique Théorique (1962)
- Docteur ès sciences d'Etat (1967)
- Maître de conférences (1968-1972)
- Professeur Titulaire de classe Normale (1972-1977)
- Professeur Titulaire de Classe Exceptionnelle (1977-...)

LANGUAGES

- Fluency in Malagasy, French, English (speaking and writing)
- Rudiments of German and Italian

PERSONAL

- Date of birth: May 16, 1936
- Married Mrs RABESAHALA Jacqueline, Maître de Conférences en Philosophie, Faculté des Lettres et Sciences Humaines, Antananarivo, University, six children
- Office Address: I.N.S.T.N. - P.O. Box 4279 Antananarivo 101 Madagascar
- Phone: (261 20) 22 355-84; (261 20) 24 714-03 (Secretary Office)
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- e-mail: instn@moov.mg or jacquelineraoelina@hotmail.com; raoelinasp@yahoo.fr
- Home : Logement 46, Cité des Professeurs, Ambolokandrina, Antananarivo, Madagascar
- Home phone number: (261 20) 22 356-96

Hobbies:

Gardening, jogging, music (Founding honorary President of the Conservatoire National Supérieur de Musique de Madagascar, 1995).