

## 2005 SEMINARS GIVEN

### 0.1 By members in Benin

1. A. Anjorin,  
Seminar of Functional Analysis,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, January 3<sup>rd</sup>, 2005,  
*Derived and Integrated Basic Sets of Polynomials in Several Complex Variables (I Part)*.
2. J. Ben Geloun,  
Seminar of Mathematical Physics,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, January 3<sup>rd</sup>, 2005,  
*Canonical Quantization: a General Overview*.
3. M. N. Hounkonnou,  
Seminar of Functional Analysis,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, January 5<sup>th</sup>, 2005,  
*Semi-Classical Orthogonal Polynomials and Charlier Polynomials*.
4. J. Ben Geloun,  
Seminar of Mathematical Physics,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, January 10<sup>th</sup>, 2005,  
*Lagrangian Formulation of Dynamics and Noether Theorem in Classical Field Theory*.
5. J. Ben Geloun,  
Seminar of Mathematical Physics,  
2<sup>nd</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, January 12<sup>th</sup>, 2005,  
*An Introduction to Quantum Field theory*.
6. E. Tchibozo,  
Seminar of Mathematical Physics,  
2<sup>nd</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, January 12<sup>th</sup>, 2005,  
*Les Signaux Multidimensionnels a Caractere Géométrique et leur Utilisation pour la Photo-Interprétation des Images Satélitaires Multispectrales*.
7. J. Ben Geloun,  
Seminar of Mathematical Physics,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, January 14<sup>th</sup>, 2005,  
*Hamiltonian Constrained Dynamics and Quantization of Constrained Systems*.

8. F. Massamba,  
Seminar of Differential Geometry,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, January 19<sup>th</sup>, 2005,  
*The Higher Rank of Seiberg-Witten Equations.*
9. A. Anjorin,  
Seminar of Functional Analysis,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, January 26<sup>th</sup>, 2005,  
*Derived and Integrated Basic Set of Polynomials in Several Complex Variables (II Part).*
10. J. Ben Geloun,  
Seminar of Mathematical Physics,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, February 12<sup>th</sup>, 2005,  
*Klauder's Physical Projector of the Schwinger Model in a 1+1 Dimensional Spacetime: a Gauge Invariant Quantum Dynamics without Gauge Fixing.*
11. F. Massamba,  
Seminar of Differential Geometry,  
1<sup>st</sup> Room of the International Chair in Mathematical Physics and Applications, University  
of Abomey-Calavi, February 16<sup>th</sup>, 2005,  
*On Riemannian Geometry: the Geometric Elements of a Riemannian Metric.*
12. J. Ben Geloun,  
Seminar of Mathematical Physics,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, February 26<sup>th</sup>, 2005,  
*An Introduction to Noncommutative Field Theory.*
13. J. Ben Geloun,  
Seminar of Mathematical Physics,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, March 3<sup>rd</sup>, 2005,  
*On a Noncommutative Version of the Schwinger Model and Lorentz Invariance.*
14. F. Massamba,  
Seminar of Differential Geometry,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, March 16<sup>th</sup>, 2005,  
*Practical Determination of the Christoffel Symbols, Curvature Tensor, Ricci Tensor and  
Scalar Curvature of the Metrics.*
15. A. Anjorin,  
Seminar of Functional Analysis,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,

- University of Abomey-Calavi, March 25<sup>th</sup>, 2005,  
*Basic Set of Polynomials.*
16. M. K. Mahaman,  
 Seminar of Partial Differential Equations (PDE),  
 1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
 University of Abomey-Calavi, March 26<sup>th</sup>, 2005,  
*On Some Ansatzes Generating Exact Solutions of Nonlinear Evolution Equations: Application to Burger, Fisher and Murray Equations.*
  17. F. Massamba,  
 Seminar of Differential Geometry,  
 1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
 University of Abomey-Calavi, April 2<sup>nd</sup>, 2005,  
*On Hodge Theory.*
  18. J. Ben Geloun,  
 Seminar of Mathematical Physics,  
 1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
 University of Abomey-Calavi, April 6<sup>th</sup>, 2005,  
*The Noncommutative Version of the Schwinger Model in the Moyal Plane: the Issue of the Hamiltonian Formalism.*
  19. J. Ben Geloun,  
 Seminar of Differential Geometry,  
 1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
 University of Abomey-Calavi, April 11<sup>th</sup>, 2005,  
*Isometries and Conformal Transformations, Killing Vector Fields and Conformal Killing Vector Fields.*
  20. A. Anjorin,  
 Seminar of Functional Analysis,  
 1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
 University of Abomey-Calavi, April 14<sup>th</sup>, 2005,  
*Basic Series Associated with the Basic Set of Polynomials.*
  21. M. K. Mahaman,  
 Seminar of PDE,  
 1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
 University of Abomey-Calavi, April 15<sup>th</sup>, 2005,  
*Construction of Exact Solutions of a Diffusion Equation Modeling Brain Cancer Treatment.*
  22. E. N. Nkouakam,  
 Seminar of Mathematical Physics,  
 2<sup>nd</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
 University of Abomey-Calavi, April 20<sup>th</sup>, 2005,  
*Star Products and Deformation Quantizable Poisson Brackets.*

23. J. Ben Geloun,  
Seminar of Mathematical Physics,  
2<sup>nd</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, May 2<sup>nd</sup>, 2005,  
*Basic Properties of the Symmetric Polynomials and Functions.*
24. M. K. Mahaman,  
Seminar of PDE,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, May 4<sup>th</sup>, 2005,  
*Symmetry Groups of Algebraic Equations: Generalities and Adaptation to the Differential Equations.*
25. M. N. Hounkonnou,  
Seminar of Mathematical Physics,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, May 9<sup>th</sup>, 2005,  
*On Non Commutative Geometry and Quantum Groups.*
26. F. Massamba,  
Seminar of Mathematical Physics,  
2<sup>nd</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, May 11<sup>th</sup>, 2005,  
*Noncommutative Gauge Field Theory in the Light Cone Representation in 2D ( Part I).*
27. A. Anjorin,  
Seminar of Functional Analysis,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, May 15<sup>th</sup>, 2005,  
*Effectiveness of Basic Set of Polynomials: their Regions of Effectiveness.*
28. M. N. Hounkonnou,  
Seminar of Functional Analysis,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, May 15<sup>th</sup>, 2005,  
*On Quasideterminants*
29. F. Massamba,  
Seminar of Mathematical Physics,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, May 18<sup>th</sup>, 2005,  
*Noncommutative Gauge Field Theory in the Light Cone Representation in 2D: Noether's Theorem and the Seiberg Witten Map ( Part II).*
30. E. N. Nkouakam,  
Seminar of Mathematical Physics,  
2<sup>nd</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,

- University of Abomey-Calavi, May 21<sup>st</sup>, 2005,  
*On the Gauge Equivalence of Star Product.*
31. M. K. Mahaman,  
 Seminar of PDE,  
 1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
 University of Abomey-Calavi, May 28<sup>th</sup>, 2005,  
*Application of the Lie Methods for the Reduction of Partial Differential Equations: Example of the Euler Equations.*
  32. M. K. Mahaman,  
 Seminar of PDE,  
 1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
 University of Abomey-Calavi, June 10<sup>th</sup>, 2005,  
*Classical, Nonclassical and Potential Symmetries: Application to the Burger's Equation.*
  33. A. Anjorin,  
 Seminar of Functional Analysis,  
 2<sup>nd</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
 University of Abomey-Calavi, June 16<sup>th</sup>, 2005,  
*On the Cannon Conditions.*
  34. M.N. Hounkonnou,  
 Seminar of Functional Analysis,  
 2<sup>nd</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
 University of Abomey-Calavi, June 16<sup>th</sup>, 2005,  
*On Non Commutative Orthogonal Polynomials: General Properties and Construction*
  35. E. N. Nkouakam,  
 Seminar of Mathematical Physics,  
 2<sup>nd</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
 University of Abomey-Calavi, June 17<sup>th</sup>, 2005,  
*Poisson Algebras of Formal Laurent Series.*
  36. F. Massamba,  
 Seminar of Mathematical Physics,  
 1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
 University of Abomey-Calavi, June 22<sup>nd</sup>, 2005,  
*Noncommutative Gauge Field Theory in the Light Cone Representation in 2D: a Gauge Invariance Regularization Procedure for the Energy-Momentum Tensor (Part III).*
  37. M. K. Mahaman,  
 Seminar of PDE,  
 1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
 University of Abomey-Calavi, June 24<sup>th</sup>, 2005,  
*Symmetry Groups and Conservation Laws: a Pratical Version of Noether's Theorem.*

38. A. Anjorin,  
Seminar of Functional Analysis,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, June 27<sup>th</sup>, 2005,  
*On the Improved Whittaker's Constant.*
39. M. N. Hounkonnou,  
Seminar of Functional Analysis,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, July 20<sup>th</sup>, 2005,  
*Noncommutative Orthogonal Polynomials.*
40. E. N. Nkouakam,  
Seminar of Mathematical Physics,  
2<sup>nd</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, August 10<sup>th</sup>, 2005,  
*The Weyl-Moyal-like Deformation of Poisson Algebras of Formal Laurent Series.*
41. A. Anjorin,  
Seminar of Functional Analysis,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, August 16<sup>th</sup>, 2005,  
*Effectiveness of Basic Set of Polynomials: Topological Aspects.*

#### 0.1.1 By the members in Africa

1. L. Bla Toh,  
Seminar of Computer Science,  
1<sup>st</sup> Seminar Room of the International Chair in Mathematical Physics and Applications,  
University of Abomey-Calavi, October 22<sup>th</sup> - October 31<sup>th</sup>, 2005,  
*Security in Using Micro-Computer, Advanced Manipulation in Word Processing and Data Shift.*

#### 0.1.2 By the members outside Africa

1. J. Govaerts,  
Seminar of Mathematical Physics,  
First International COPROMAPH School, University of Abomey-Calavi, October 31<sup>st</sup>-  
November 4<sup>th</sup>, 2005,  
*Quantum Mechanics and Fields for Physicists and Mathematicians, Strings before the 1995 Revolution.*
2. J. Govaerts,  
Grand Public Conference in the Framework of the World Year of Physics,  
Institut de Sciences Bio-Médicales Appliquées (ISBA), Cotonou, November 2<sup>nd</sup>, 2005,  
*Einstein, Architecte de l'Univers: Cent Années de Physique pour le XXI<sup>ème</sup> Siècle .*

3. S. T. Ali,  
Seminar of Mathematical Physics,  
Institut de Mathématique et de Sciences Physiques, University of Abomey-Calavi, November 14<sup>th</sup>- November 18<sup>th</sup>, 2005,  
*Lectures on Techniques of Quantization.*