

CURRICULUM VITAE

First name: Ali

Last name: BAKLOUTI

Date of birth: 02-23-1967.

Citizenship: Tunisian.

Position: Professor.

Institution: Faculty of Sciences of Sfax.

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Qualifications

- Master of Mathematic: June 1992 (Grade: Très Bien, Metz University, France).
- PhD: June 1995 (Grade : Très honorable, Metz University, France).

Title of the thesis:

« Opérateurs d'entrelacement des représentations unitaires et Cortex des groupes de Lie nilpotents ».

- University Habilitation: May 1999 (Faculty of Sciences of Sfax).

Title of the habilitation:

« Contribution à la résolution de certains problèmes concernant les Représentations unitaires des groupes de Lie Résolubles ».

Appointments

- 1995-1997: A.T.E.R, University of Metz (France).
- 1998-1999: Assistant Professor, Faculty of Sciences of Sfax.
- 1999-2004: Associate Professor, Faculty of Sciences of Sfax.
- Since 2004: Professor, Faculty of Sciences of Sfax.

Scientific Publications

[1] A. Baklouti: *Le Cortex en dimension six*. Publication du centre universitaire de Luxembourg. Fascicule V, 1993(7 - 45).

- [2] A. Baklouti: *On the Cortex of connected Simply connected Nilpotent Lie Groups*. Russ. J. Math. Physics. Volume **5**, Number 3. 1997(281-294).
- [3] A. Baklouti, J. Ludwig et M. Selmi: *Séparation des représentations unitaires et irréductibles des groupes de Lie nilpotents*. Lie Theory and its applications in Physics. Volume **2**. 1997 (75-91).
- [4] A. Baklouti: *Nouvelle désintégration lisse de $L^2(G)$ pour les groupes résolubles exponentiels*. Journal of Lie Theory. Volume **8**.1998 (1-26).
- [5] A. Baklouti et J. Ludwig: *Désintégration des représentations monomiales des groupes de Lie nilpotents*. Journal of Lie Theory. Volume **9**. N 1. 1999(157-191).
- [6] A. Baklouti: *Harmonic Analysis On Invariant Differential Operators On Nilpotent Homogenous Spaces*. Russ. J. Math. Physics. Volume **6**, N 2.1999(125-136)
- [7] A. Baklouti and J. Ludwig: *The Penney-Fujiwara Plancherel Formula for nilpotent Lie groups*. J. Math. Kyoto Univ. Volume **40**, N 1. 2000.
- [8] D. Arnal, A. Baklouti, J. Ludwig and M. Selmi: *Separation of Unitary representations of exponential solvable Lie groups*. Journal of Lie Theory. Volume **10**. N 2. 2000(399-410).
- [9] A. Baklouti et J. Ludwig: *Entrelacement des restrictions des représentations unitaires des groupes de Lie nilpotents*. Annales de L'institut Fourier. Grenoble, Volume **51**, N 2, 2001(1-35).
- [10] A. Baklouti, C. Benson and G. Ratcliff: *Moment Separation of the unitary dual of nilpotent Lie Groups*. Journal of Lie Theory. Volume **11**. N 1, 2001(153-154).
- [11] A. Baklouti and J. Ludwig: *Invariant Differential Operators On Certain Nilpotent Homogeneous Spaces*. Monatshefte für Mathematik, Volume **134**, N 1, 2001(19-37).
- [12] A. Baklouti and H. Fujiwara: *Harmonic Analysis on some Exponential Homogeneous Spaces*. Research and Exposition in Math, Volume **25**, N 1, 2001(127-134).
- [13] A. Baklouti and H. Hamrouni: *On the Down-Up Representations of Exponential Solvable Lie Groups*. Russ. J. Math. Physics. Volume **8**, N 4, 2001(422-432).
- [14] A. Baklouti, A. Ghorbel et H. Hamrouni: *Sur Les Représentations Mixtes Des Groupes de Lie Résolubles Exponentiels*. Publ. Mat. Volume **46**, 2002(179-199).
- [15] A. Baklouti, J. Ludwig and K. Smaoui: *Estimate of the L^p -Fourier transform norm of Nilpotent Lie Groups*. J. Funct. Anal. **199**, 2003(508-520).
- [16] A. Baklouti et H. Fujiwara: *Opérateurs Différentiels Associés à Certaines Représentations Unitaires des Groupes de Lie Résolubles Exponentiels*. Compositio. Math. Volume **139**, 2003(29-65).

- [17] A. Baklouti and H. Fujiwara: *Commutativité de l'algèbre des Opérateurs différentiels sur l'espace des représentations restreintes des groupes de Lie nilpotents*. J. Math. Pures. Appl. Volume **83**, 2004(137-161).
- [18] A. Baklouti, N. Ben Salah and K. Smaoui: *Some uncertainty principles for nilpotent Lie groups*. Contemporary Mathematics. Volume **363**, 2004(39-52).
- [19] A. Baklouti, H. Fujiwara and J. Ludwig: *Analysis of Restrictions of Unitary Representations of a Nilpotent Lie Group*. Bull. Sci. Math. Volume **129**, Issue 3, 2005, (187-209).
- [20] A. Baklouti, S. Dhieb et D. Manchon: *Déquantification des orbites coadjointes et variétés caractéristiques*. J. Geo. Physics. Volume **54**, N 1, 2005 (1-41).
- [21] A. Baklouti and F. Khlif: *Proper actions on some exponential solvable homogeneous spaces*. Int. J. Math. Volume **16**, N 9, 2005 (941-955).
- [22] A. Baklouti: *Dequantization of co-adjoint orbits : Moment Sets and characteristic varieties*. Contemporary Mathematics. Volume **377**, 2005 (79-91).
- [23] A. Baklouti and N. Ben Salah: *The L_p - L_q Version of Hardy's Theorem on nilpotent Lie groups*. Forum Mathematicum. Volume **18**, 2006 (245-262).
- [24] A. Baklouti, H. Hamrouni and F. Khlif: *Analysis of some monomial representations of exponential solvable Lie groups*. Russ. J. Math. Physics. Volume **13**, N 4, 2006 (363-379).
- [25] A. Baklouti, J. Ludwig, L. Scuto and K. Smaoui: *Estimate of the L_p -Fourier Transform Norm on Strong $*$ -Regular Exponential Solvable Lie Groups*. Acta. Math. Sinica. Volume **23**, N 8, 2007 (1173-1188).
- [26] A. Baklouti and F. Khlif: *Weak proper actions on solvable homogeneous spaces*. Int. J. Math. Volume **18**, N 8, 2007 (903-918).
- [27] A. Baklouti and H. Hamrouni: *The multiplicity function of mixed representations on Completely solvable Lie groups*. Tokyo. J. Math. Volume **30**, N 1, 2007 (41-55).
- [28] A. Baklouti and K. Tounsi: *On the Benson-Ratcliff invariant of coadjoint orbits on nilpotent Lie groups*. Osaka. J. Math. Volume **44**, 2007 (399-414).
- [29] A. Baklouti and N. Ben Salah: *On Theorem of Beurling and Cowling-Price for certain nilpotent Lie groups*. Bull. Sci. Math. Volume **132**, No. 6, 2008 (529-550).
- [30] A. Baklouti and E. Kaniuth: *On Hardy's uncertainty principle for connected nilpotent Lie groups*. Math. Z. Volume 259, No. **2**, 2008 (233-247).
- [31] A. Baklouti, I. Kédim and T. Yoshino : *On the deformation space of Clifford-Klein forms of Heisenberg groups*. Int. Math. Res. Not. IMRN (2008), no. **16**, 35 pp
- [32] A. Baklouti and I. Kédim: *On the deformation space of Clifford-Klein forms of some exponential solvable homogeneous spaces*. Int. J. Math. Vol 20, Issue **7**, 2009(817-839).

- [33] A. Baklouti, J. Ludwig and H. Fujiwara: *A variant of Frobenius reciprocity for restricted representations on nilpotent Lie groups*. Infinite dimensional harmonic analysis **IV**. Hackensack, NJ: World Scientific. 13-31 (2009).
- [34] A. Baklouti: *Deformation of discontinuous subgroups acting on some nilpotent homogeneous spaces*. Proc. Japan Acad., 85, Ser. A. No. **4**. (2009) 41-45.
- [35] A. Baklouti and E. Kaniuth : *On Hardy's uncertainty principle for solvable locally compact groups*. J. Fourier Anal. Appl. **16**, No. 1, 129-147 (2010)
- [36] A. Baklouti and F. Khlif: *Deforming discontinuous subgroups for threadlike homogeneous spaces*. Geometria Dedicata. Vol 146, 117-140 (2010)
- [37] A. Baklouti and I. Kédim : *On non-abelian subgroups acting on exponential solvable homogeneous spaces*. Int. Math. Res. Not. 2010, No. **7**, 1315-1345 (2010)
- [38] A. Baklouti and S. Thangavelu : *Variants of Miyachi's Theorem on Nilpotent Lie groups*. J. Aust. Math. Soc. **88**, No. 1, 1-17 (2010).
- [39] F. Abdelmoula and A. Baklouti: *The L^p - L^q -version of Morgan's Theorem for exponential solvable Lie groups*. Math. Notes. 88, No. **4**, 464-478 (2010).
- [40] A. Baklouti and J. Inoue: *Estimate of the L^p -Fourier transform norm for connected nilpotent Lie groups*. Adv. Pure. Appl. Math. **2**, No. 3-4, 467-483 (2011).
- [41] Baklouti, Ali; Dhieb, Sami; Manchon, Dominique. A deformation approach of the Kirillov map for exponential groups. Adv. Pure Appl. Math. **2**, No. 3-4, 421-436 (2011).
- [42] Ali Baklouti: On discontinuous subgroups acting on solvable homogeneous spaces, Proc. Jap. Academy, 87, Serial A. 87, No. **9**, 173-177 (2011).
- [43] Ali Baklouti, Sami Dhieb and Khaled Tounsi, When is the deformation space $T(\Gamma, H_{2n+1}, H)$ a smooth manifold? Int. J. Math. Vol. 22, No. **11** (2011) 1–21.
- [44] A. Baklouti, F. Khlif and H. Koubaa. On the geometry of stable discontinuous subgroups acting on threadlike homogeneous spaces. Math. Notes, Volume 89, Numbers 5-6, 761-776(2011).
- [45] A. Baklouti and J. Inoue: Estimate of the L^p -Fourier transform norm for connected nilpotent Lie groups. Adv. Pure Appl. Math. **2**, No. 3-4, 467-483 (2011).
- [46] Ali Baklouti: Analogues to some uncertainty principles on certain solvable Lie groups. Adv. Pure Appl. Math. **3**, No. 3, 265-279 (2012).
- [47] L. Abdelmoula, A. Baklouti and I. Kédim: The Selberg-Weil-Kobayashi local rigidity Theorem for exponential Lie groups. Int. Math. Res. Not. No. **17**, 4062-4084 (2012).
- [48] A. Baklouti, N. ElAloui and I. Kédim. *A rigidity Theorem and a Stability Theorem for two-step nilpotent Lie groups*. J. Math. Sci. Univ. Tokyo **19** (2012), 1–27.

- [49] A. Baklouti and I. Kédim. *On the local rigidity of discontinuous groups for exponential solvable Lie groups*. Adv. Pure. Appl. Maths. 4, No. 1, 3-20 (2013)..
- [50] F. Abdelmoula, A. Baklouti and D. Lahiani: *The L^p - L^q -version of Miyachi's Theorem for nilpotent Lie groups and sharpness problems*. Math. Notes. 94, Issue 1-2, 3-19 (2013).
- [51] A. Baklouti, J. Ludwig and H. Fujiwara: *La formule de Penney-Plancherel des restrictions à multiplicités finies des groupes de Lie nilpotents*. Adv. Pure Appl. Math. 4, No. 1, 21-40 (2013).
- [52] A. Baklouti and I. Kédim. *Open problems in deformation theory of discontinuous groups acting on homogeneous spaces*. Int. J. Open Problems Comput. Math. , Vol. 6, No. 1, 2013, 115-131.
- [53] S. Azouazi, A. Baklouti and M. Elloumi: *Some uncertainty principles like Miyachi, Cowling-Price and Morgan, on compact extensions of \mathbb{R}^n* . Indian. J. Pure . App. Maths. Volume 44, Issue 5, pp 587-604 (2013).
- [54] Azouazi. Salma, Baklouti. Ali, Elloumi. Mounir: *Analogues of Miyachi, Cowling-price and Morgan theorems for compact extensions of \mathbb{R}^n* . Indian J. Pure Appl Math. 44 (2013), no. 5, 587–604.
- [55] S. Azaouzi, A. Baklouti and M. Elloumi: *A generalization of Hardy's uncertainty principle on compact extensions of \mathbb{R}^n* . Annali. Math. Pura. Applicata. Ann. Mat. Pura Appl. (4) 193 (2014), no. 3, 723–737.
- [56] A. Baklouti and J. Inoue: *Estimate of the L^p -Fourier transform norm of compact extensions*. Forum. Math. **26** (2014), no. 2, 621--636.
- [57] A. Baklouti, J. Ludwig and H. Fujiwara: *Intertwining Operators of irreducible representations for Exponential Solvable Lie groups*. Forum. Math. 27, no 4, 2231-2257.
- [58] Baklouti. Ali, Ghaouar. Sonia, Khelif. Fatma: *Deforming discontinuous subgroups of reduced Heisenberg groups*. Kyoto J. Math. 55(2015), no. 1, 219–242.
- [59] Baklouti. Ali, Ghaouar. Sonia, Khelif. Fatma: *On discontinuous groups acting on $(H^{2n+1} \times H^{2n+1})/\Delta$* . Adv. Pure Appl. Math. 6(2015), no. 2, 63–79.
- [60] Alghamdi. Ahmad M. A., Baklouti. Ali: *A Beurling theorem for exponential solvable Lie groups*. J. Lie Theory 25 (2015), no. 4, 1125–1137.
- [61] Azaouzi. Salma, Baklouti. Ali, Ben Ayed Sabria: *Variants of Müntz-Szász analogs for Euclidean spin groups*. Math. Notes 98, No.3, 367-381 (2015).
- [62] Baklouti. Ali, Lahyani. Dhoha: *Some uncertainty principles for diamond Lie groups*. Adv. Pure Appl. Math. 6 (2015), no. 4, 199–213.
- [63] A. Baklouti, N. ElAloui and I. Kédim. *The Selberg-Weil-Kobayashi rigidity Theorem. The rank one solvable case*. Int. J. Math. 27, N°10. (2016). 1650085,23 pp.

[64] A. Baklouti and S. Bejar. On the Calabi-Markus phenomenon and a rigidity theorem for Euclidean motion groups. *Kyoto. J. Math.* 56, N°2. (2016), 325-346.

[65] Baklouti, Ali: On the L^p -Fourier transform norm for certain Lie groups. *Analysis, geometry and representations on Lie groups and homogeneous spaces*, 13–22, *Sem. Math. Sci.*, 39, Keio Univ., Yokohama, 2016.

[66] A. Baklouti and S. Bejar. Variants of stability of discontinuous groups for Euclidean motion groups. *Int. J. Math.* 28, No. 6, 26 p. (2017).

[67] Baklouti, Ali; Ghaouar, Sonia; Khlif, Fatma A stability theorem for non-abelian actions on threadlike homogeneous spaces. *Springer Proc. Math. Stat.* 207(2017) ,117–135.

[68] A. Baklouti, S. Bejar and Ramzi Fendri. A local rigidity Theorem for finite actions on Lie groups and application to compact extensions of \mathbb{R}^n . *Kyoto. J. Math.* To appear.

[69] A. Baklouti, H. Fujiwara and J. Ludwig: Monomial representations of discrete type of an exponential solvable Lie group. *Springer Proceedings in Mathematics and Statistics*. To appear

[70] A. Baklouti, S. Dhieb and D. Manchon: The Poisson characteristic variety of unitary irreducible representations of exponential Lie groups. *Springer Proceedings in Mathematics and Statistics*. To appear.

Survey Papers

[1] A. Baklouti: Dequantization of co-adjoint orbits: Moment Sets and characteristic varieties. *Contemporary Mathematics*. Volume 377,2005(79-91).

[2] A. Baklouti: Analogues to some uncertainty principles on certain solvable Lie groups. *Adv. Pure Appl. Math.* 3, No. 3, 265-279 (2012).

[3] A. Baklouti: On the L^p -Fourier transform norm for certain Lie groups. *Analysis, geometry and representations on Lie groups and homogeneous spaces*, 13–22, *Sem. Math. Sci.*, 39, Keio Univ., Yokohama, 2016.

Edited Volumes

- *Advances in Pure and Applied Mathematics*. Volume 2, Issue 3-4 (Sep 2011). De Gruyter.
- *Advances in Pure and Applied Mathematics*. Volume 4, Issue 1 (Jan 2013). De Gruyter.
- *Advances in Pure and Applied Mathematics*. Geometric and harmonic analysis on homogeneous spaces and applications: Part I. Proceedings of the Third Tunisian-Japanese Conference, Hammamet, Tunisia, December 2013. De Gruyter.

- Advances in Pure and Applied Mathematics. Geometric and harmonic analysis on homogeneous spaces and applications: Hammamet. December 2013. De Gruyter.
- Analysis and Geometry. MIMS-GGTM, Tunis, March 2014. Springer Proceedings in Mathematics & Statistics.
- Geometric and Harmonic Analysis on Homogeneous Spaces and Applications. TJC 2015, Monastir, Tunisia, December 18-23. Springer Proceedings in Mathematics & Statistics 207. Berlin: Springer (ISBN 978-3-319-65180-4/hbk; 978-3-319-65181-1/ebook). xx, 160p. (2017).
- Advances in Pure and Applied Mathematics. Proceedings of the 22nd Meeting of the Tunisian Mathematical Society, Mahdia, 2017. De Gruyter.

Supervision of Master Dissertations

I have supervised the following Master dissertations:

- L. Dridi (in collaboration with M. Selmi). Novembre 1999.
- F. Khelif. July 2001.
- K. Smaoui. July 2001.
- W. Abdelhedi. September 2002.
- K. Kammoun. January 2003.
- N. Ben Salah. July 2003.
- H. Koobâa. October 2005.
- F. Abdelmoula. July 2008.
- N. Alaoui. July 2008.
- W. Ben Salah. July 2009.
- S. Haydri. July 2010.
- N. Kaddachi. July 2010.
- S. Souissi. July 2010.
- A. Rahali. July 2010.
- S. Guawar. July 2011.
- D. Lahiani. July 2012.

- Y. Bouaziz. July 2012.

Supervision of PhD Theses

I have supervised the following PhD Theses:

- H. Hamrouni : September 2003. Title : *Etude de certaines représentations unitaires d'un groupe de Lie résoluble exponentiel.*
- A. Ghorbel: I co-supervised the thesis of A. Ghorbel. September 2003.
Title : *Représentations mixtes et Formule de Bonnet Plancherel pour des groupes de Lie résolubles exponentiels.*
- K. Smaoui : June 2005. Title: *Sur la norme de la transformée de Fourier non-unitaire sur des groupes de Lie résolubles exponentiels.*
- F. Khelif : February 2006. Title: *Etude de quelques problèmes concernant les entrelacements des représentations unitaires d'un groupe de Lie résoluble exponentiel.*
- N. Ben Salah: February 2008. Title: *Sur quelques principes d'incertitude sur des groupes de Lie nilpotents.*
- F. Abdelmoulah: September 2012. Title: *Sur quelques principes d'incertitude sur des groupes de Lie résolubles et C^* -algèbres.*
- H. Koobâa: October 2012. Title: *Noyau des représentations des algèbres de groupes et espaces de déformation des groupes discontinus.*
- S. Azouazi: December 2013. Title: *Sur quelques principes d'incertitude sur des produits semi-directs et C^* -algèbres.*
- A. Rahali (with M. Benhalima): December 2013. Title: *Règles de branchement pour des groupes de Lie compacts.*
- H. Rejaiba (with Jean Ludwig): April 2014. Title. *C^* -algèbres des certains groupes de Lie nilpotents.*
- W. Bensalah (with A. Baklouti): June 2014. Title: *Extensions centrales des algèbres de Jordan.*
- N. Alaoui : November 2014. Title: *Déformation des sous-groupes discontinus sur les groupes de Lie nilpotents.*
- S. Ghaour : November 2015. Title: *Déformation des structures nilpotentes sur certains groupes de Lie réduits.*
- S. Bejar: January 2016. Title: *Déformation des groupes discontinus des extensions compactes.*

- D. Lahiani: October 2016. Title: *Some uncertainty principles on solvable Lie groups*.
- S. Haydri: November 2016. Title: *Sur les superalgèbres de Lie et les superalgèbres de Jordan*.
- M. Bossofara: July 2018. Title: *Deformation of discrete subgroups of 3-step nilpotent Lie groups*.
- R. Fendri: December 2018. Title: *Proper action criterion for Euclidean motion groups*.
- S. Ben Ayed: December 2018. Title: *Müntz-Szász Theorem for some Lie groups*.

I am currently supervising the following PhD theses:

- S. Adili: Title: *Proper action for affine groups*.
- K. Dhahri: Title: *Some rigidity problems on compact extension of nilpotent Lie groups*.
- M. Ayadi : Title : *Algebraic properties and combinatorial of finite topological spaces*.

Selected Invited Lectures

- 1) **March 1994 (Monastir, Tunisie):** Deuxième Colloque de la Société Mathématique de Tunisie. "Opérateur d'entrelacement des représentations monomiales des groupes de Lie nilpotents".
- 2) **August 1994 (Moscou, Russia):** Participation au Congrès International de Mathématiques à Moscou organisé par l'International Sophus Lie Centre et la Russian Independent University. " On the cortex of two and three steps nilpotent Lie groups".
- 3) **October 1995 (Luxembourg):** Centre Universitaire de Luxembourg. "Méthode d'orbites et désintégration des représentations unitaires des groupes de Lie nilpotents".
- 4) **June 1996 (Metz, France):** Colloque Metz-Nancy-Strasbourg. " Sous-groupes de Kazhdan et moyennes invariantes sur la sphère".
- 5) **February 1997 (Luxembourg):** Centre Universitaire de Luxembourg. "Analyse multirésolution, bases orthonormées et bases de Riesz".
- 6) **June 1997 (Poitiers, France):** Colloque en l'honneur de Pierre Bernat, Université de Poitiers. "Séparation des représentations unitaires des groupes de Lie nilpotents".
- 7) **February 1998 (Paris, France):** Paris 7, Jussieu. "Analyse harmonique sur les espaces homogènes exponentiels".

- 8) **June 1998 (Leiden, Pays Bas):** Leiden University, The Netherlands, ESGT 98/ European School in Group Theory. "Harmonic Analysis for Certain Monomial Representations of an Exponential Solvable Lie Group".
- 9) **March 1999 (Tabarka, Tunisia):** Colloque de la Société Mathématique de Tunisie. "Frobenius reciprocity and differential operators on certain solvable homogeneous spaces."
- 10) **April 1999 (Las Vegas, U.S.A):** Sectional Meeting of the American Mathematical Society, Las Vegas (U.S.A)."Generalized Moment Sets and Unitary Representations of Exponential Solvable Lie Groups "
- 11) **April 1999 (Saint-Louis, U.S.A):** The Department of Mathematics and Computer Science. The University of Saint Louis at Missouri. "Differential operators on the space of a unitary representations of exponential solvable Lie groups "
- 12) **February 2000 (Monastir, Tunisia):** "Opérateurs Différentiels sur l'espace de la restriction d'une représentation unitaire d'un groupe de Lie résoluble exponentiel "
- 13) **July 2000 (Barcelone, Spain):** European Congress of Mathematics: "Differential Operators on the Space of a Unitary Representation of Exponential Lie Groups".
- 14) **July 2000 (Vigo, Spain):** First Colloquim on Lie Theory and applications: "Harmonic Analysis on Some Exponential Solvable Homogeneous Spaces".
- 15) **August 2000 (Odense, Danemark):** European School in Group Theory and Plancherel Formula: " The Penney-Fujiwara-Plancherel Formula of Nilpotent Lie Groups "
- 16) **March 2001 (Hammamet, Tunisia):** SMT 2001. " Analyse Harmonique sur les Espaces homogènes Exponentiels "
- 17) **October 2001 (Luxembourg):** "Estimation de la norme de la transformée de Fourier L_p sur les groupes résolubles "
- 18) **October 2001 (Nancy, France):** " Estimation de la norme de la transformée de Fourier L_p sur les groupes de Lie nilpotents "
- 19) **October 2001 (Metz, France):** "Commutativité des sous-algèbres dans l'algèbre enveloppante d'un groupe de Lie nilpotent "
- 20) **August 2002 (Beijing, China):** International Congress of Maths, ICM 2003: "Differential operators on the space of restricted representations on nilpotent Lie groups".

- 21) **December 2002 (Clermont Ferrand, France):** "Multiplicités des Représentations mixtes des groupes de Lie complètement résolubles".
- 22) **February 2003 (Vienna, Austria):** International workshop on Idempotent Mathematics and dequantization. "Dequantization of coadjoint orbits: Moment sets and Characteristic varieties".
- 23) **August 2003 (Edmonton, Canada):** Banach Algebra 2003. " The Cowling-Price Theorem for Nilpotent Lie Groups ".
- 24) **September 2003 (Munich, Germany):** GSF-International workshop on Uncertainty principles. " Some Uncertainty principles on Nilpotent Lie Groups ".
- 25) **September 2003 (Sfax, Tunisia):** Troisièmes Journées d'Analyse harmonique. : " Sur Certains Principes d'incertitude sur les groupes de Lie Nilpotents ".
- 26) **October 2003 (Luxembourg):** " Le Théorème de Cowling-Price sur les groupes de Lie Nilpotents ".
- 27) **December 2003 (Clermont Ferrand, France):** " Le Théorème de Cowling-Price sur les groupes de Lie Nilpotents ".
- 28) **June 2004 (Escorial, Spain):** " Some Uncertainty principles and Harmonic Analysis on Nilpotent Lie Groups ".
- 29) **July 2004 (Istanbul, Turkey):** " Differential Operators on the space of a Restricted Representation on Nilpotent Lie groups ".
- 30) **November 2004 (Awajishima, Japan):** "Weak proper actions on exponential homogeneous spaces ".
- 31) **April 2005 (Munich, Germany):** "Some uncertainty principles on NPC nilpotent Lie groups".
- 32) **May 2005 (Dijon, France):** "Sur les actions propres sur les espaces homogènes nilpotents".
- 33) **June 2005 (Kiel, Germany):** "Some uncertainty principles on NPC nilpotent Lie groups".
- 34) **April 2006 (Paderborn, Germany):** "The Cowling-Price Theorem on 2-NPC nilpotent Lie groups".

- 35) **July 2006 (Istanbul, Turkey):** "Weak proper actions on solvable homogeneous spaces ".
- 36) **September 2006 (Clermont-Ferrand, France):** "Actions faiblement propres sur les espaces homogènes exponentiels".
- 37) **December 2006 (Dijon, France):** "Actions faiblement propres sur les espaces homogènes résolubles".
- 38) **February 2007 (Kyushu, Japan):** "Proper and weak proper actions on solvable homogeneous spaces ".
- 39) **February 2007 (RIMS-Kyoto, Japan):** "Some uncertainty principles on nilpotent Lie groups ".
- 40) **May 2007 (Oujda, Morocco):** "Opérateurs d'entrelacement des représentations monomiales des groupes de Lie nilpotents".
- 41) **September 2007 (Metz, France):** "Harmonic Analysis on monomial representations of a nilpotent Lie groups ".
- 42) **November 2007 (Dijon, France):** "Actions faiblement propres et espaces des déformations".
- 43) **December 2007 (Hong-Kong):** "Deformation spaces of an action of discontinuous subgroups on nilpotent homogeneous spaces ".
- 44) **April 2008 (Paderborn, Germany):** "Deforming discontinuous subgroups on homogeneous spaces".
- 45) **June 2008 (Elescorial, Spain):** "On Hardy's Theorem on connected nilpotent Lie group".
- 46) **August 2008 (Bangalore, India) (two lectures):** "General Uncertainty principles on solvable Lie groups ".
- 47) **November 2008 (Luminy, Marseille):** "The Miyachi Theorem for Nilpotent Lie groups ".
- 48) **November 2008 (Atami, Japan):** "The deformation spaces of the action of discontinuous subgroups acting on solvable homogeneous spaces ".
- 49) **February 2009 (Kyushu, Japan):** "Rigidity property of deformations on nilpotent Lie groups ".

50) **April 2009 (Kénitra, Morocco)**: "Description de l'espace de déformation des actions des groupes discontinus".

51) **July 2009 (Casablanca, Morocco)**: "Sur certains principes d'incertitude pour les groupes de Lie nilpotents".

52) **December 2009 (Taiwan)**: "The Plancherel Theorem of monomial representation of exponential discrete type".

53) **March 2010 (SMT, Sousse)**: "Some uncertainty principles on solvable Lie groups".

54) **July 2010 (Oulou, Finland)**: "On sharpness problems of some uncertainty principles on nilpotent Lie groups".

55) **June 2011 (Luxembourg)**: "Estimate of the Fourier transform norm on some Lie groups".

56) **June 2011 (China)**: "Some uncertainty principles on certain Lie groups".

57) **March 2012 (HRI, India)**: "The representation theory of nilpotent Lie groups". (Four lectures)

58) **September 2012 (MIMS, Tunis)**: "The theory of discontinuous subgroups acting on homogeneous spaces".

59) **October 2012 (Nice, France)**: "On the geometry of discontinuous subgroups acting on homogeneous spaces".

60) **November 2012 (Tokyo)**: "On the geometry of discontinuous subgroups acting on solvable homogeneous spaces".

61) **November 2012 (Tokyo)**: "Some aspects of the deformation theory of discontinuous subgroups of solvable homogeneous spaces".

62) **December 2012 (Sousse)**: "Harmonic analysis on monomial representations of exponential solvable Lie groups".

63) **January 2013 (Kyushu, Japan)**: "Harmonic analysis on monomial representations of discrete type of exponential solvable Lie groups".

64) **April 2013 (Clermont-Ferrand, France)**: "Sur les représentations de type discret des groupes de résolubles exponentiels".

- 65) **Mai 2013 (Granada, Spain):** "On the L^p -Fourier transform norm on some Lie groups".
- 66) **February 2014 (Tsukuba):** "On the Fourier transform on some Lie groups".
- 67) **February 2014 (Kyushu, Japan):** "On the theory of deformation of discontinuous actions on homogeneous spaces".
- 68) **December 2014 (Marrakech, Morocco):** "On the L^p -Fourier transform norm on some Lie groups".
- 69) **January 2015 (Hammamet, Tunisia):** "On the Fourier transform on some Lie groups".
- 70) **August 2015 (Halifax, Canada):** "On the L^p -Fourier transform norm on some Lie groups".
- 71) **December 2015 (New Delhi):** "Estimate of the L^p -Fourier transform norm on certain Lie groups".
- 72) **February 2016 (Tsukuba, Japan):** "Some uncertainty principles on certain Lie groups".
- 73) **September 2016 (Tsukuba, Japan):** "Hardy's theorem on Lie groups".
- 74) **January 2017 (Tottori, Japan):** "Monomial representations of discrete types for certain exponential Lie groups".
- 75) **July 2017 (Obewolfach, Germany):** "On the L^p -Fourier transform norm for some solvable Lie groups and their compact extensions".
- 76) **January 2018 (Bilbao, Spain):** "Some uncertainty principles on solvable Lie groups and their compact extensions".
- 77) **February 2018 (The Tunisian Academy of Sciences, Letters and Arts: Beit al Hikma/Tunisian Academy of Sciences, Letters and Arts: Beit Elhikma):** "L'infini".
- 78) **March 2018 (TEM2018: Ibn Tofail, Kenitra Morocco):** "On the L^p Fourier Transform on some Lie groups".
- 79) **May 2018 (Casablanca, Morocco). Harmonic Analysis and Integral Geometry:** "A full generalized version of Hardy's Theorem on nilpotent Lie groups".
- 80) **June 2018 (20-23, University of Haute Alsace, Mulhouse, France):** Algebra and Lie Theory Conference. "Monomial representations of discrete type and differential operators".

81) **September 2018 (Rabat, Morocco)**. Académie Hassan II des Sciences et Techniques: Mathématiques, Applications et Interactions avec la Physique: Quelques propriétés de la transformée de Fourier sur certains groupes de Lie.

82) **October 2018 (IHES, PARIS-SACLAY, <https://www.ihes.fr/>)**: "On the deformation theory of discontinuous groups acting on solvable homogeneous spaces"

83) **October 2018 (Metz, Université de Lorraine, France)**: "C'est quoi l'analogie du Théorème de Müntz-Szász pour un groupe de Lie?" Théorie de Lie, Géométrie et Analyse (LieGA).

84) **October 2018 (Journées SL₂(R) à Reims)**: "Does "ax+b" stand for the solvable analogue of SL₂(R) in deformation theory ?"

85) **October 2018 (Laboratoire de Mathématiques Blaise Pascal, Clermont-Ferrand)**: "Représentations monomiales des groupes de Lie exponentiels et opérateurs différentiels"

86) **December 2018 (Graduate School of Mathematical Sciences, University of Tokyo)**: "Monomial representations of discrete type and differential operators".

87) **December 2018 (Faculty of Mathematics, Kyushu University, Japan)**: "Müntz-Szász analogues for some compact extensions of nilpotent Lie groups".

88) **February 2019 (Graduate School of Mathematics, Nagoya, Japan)**: "Harmonic analysis on monomial representations of exponential Lie groups and a counterexample to Duflo's Conjecture".

89) **April 2019 (Marrakech, Morocco, In memory of Ahmad Intissar)**: "Harmonic analysis around monomial representations of exponential Lie groups".

90) **April 2019 (American University of Sharjah, UAE. Department of Mathematics and Statistics)**: "Branching laws of some unitary representations of exponential Lie groups and related differential operators algebras".

91) **April 2019 (New York University Abu Dhabi, UAE)**: "Some problems related to Fourier analysis on solvable Lie groups and their compact extensions".

Visiting Grants

- 1998 and 2000: University of Metz (France). (By Professor Jean Ludwig).
- 1999: Saint-Louis, Missouri, USA. The Department of Mathematics and Computer Sciences. (By Professors Chal Benson and Gail Ratcliff).

- 2001: University of Nancy (France). Institut Henri Poincaré. (By Professor Dominique Manchon, Project CNRS-DGRST).
- 2002: University of Kinki, Fukuoka, Japon. Institute of Technology. (By Professor Hidenori Fujiwara).
- 2002 and 2003: University of Clermont-Ferrand (France). University Blaise Pascal. (By Professor Dominique Manchon, Project CNRS-DGRST).
- 2004: RIMS, Kyoto. (By Professor Toshiyuki Kobayashi).
- 2006: University of Clermont-Ferrand. University Blaise Pascal. (By Professor Dominique Manchon, Project CNRS-DGRST).
- 2006: University of Paderborn (Germany). (By Professor Eberhard Kanuith).
- 2007: University of Kinki, Fukuoka, Japon. Institute of Technology. (By Professor Hidenori Fujiwara).
- 2007: RIMS, Kyoto. (By Professor Toshiyuki Kobayashi).
- 2007: Max-Planck Institute. Bonn, (Germany). (By Professor Bernhard Krötz).
- 2007: Universities of Clermont-Ferrand and Bourgogne. (By Professors Dominique Manchon and Didier Arnal).
- 2007: University of Luxembourg. Département de Mathématiques. (By Professor Carine Molitor-Braun).
- 2008: University of Paderborn (Germany). (By Professor Eberhard Kanuith).
- 2008: Indian Institute of Science, Bangalore (India). (By Professor Sunduram Thangavelu).
- 2008: Universities of Clermont-Ferrand and Bourgogne. (By Professors Dominique Manchon and Didier Arnal).
- 2009: University of Kinki, Fukuoka, Japon. Institute of Technology. (By Professor Hidenori Fujiwara).
- 2009: University of Clermont-Ferrand. University Blaise Pascal. (By Professor Dominique Manchon).
- 2010: University of Clermont-Ferrand. University Blaise Pascal. (By Professor Dominique Manchon).
- 2011: University of Metz. (By Professor Jean Ludwig).
- 2011: University of Clermont-Ferrand. University Blaise Pascal. (By Professor Dominique Manchon).
- 2011: University of Oulou (Finland). (By Professor Mahmoud Filali).

- 2012: University of Allahabad. Harish-Chandra Institute. (By Professor Ratnakumar P. K).
- 2012: University of Tottori. (By Professor Junko Inoue).
- 2012: University of Metz. (By Professor Jean Ludwig).
- 2012-2013: JSPS grant. (Fukuoka, Tottori and Tokyo) (By Professor Hidenori Fujiwara).
- 2013: University of Clermont-Ferrand. University Blaise Pascal. (By Professor Dominique Manchon).
- 2015: University of Tottori and University of Nagoya. (By Professors Junko Inoue and Hideyuki Ishi).
- 2017: University of Metz. (By Professor Jean Ludwig).
- 2017: University of Tottori and Tsukuba. (By Professors Junko Inoue and James Cole).
- 2017: University of Tokyo. (By Professor Toshiyuki Kobayashi).
- 2018: University of Clermont-Ferrand. University Blaise Pascal. (By Professor Dominique Manchon).
- 2018: IHES (Institut des Hautes Études Scientifiques, UNIVERSITÉ PARIS-SACLAY): <https://www.ihes.fr/>
- 2019: Graduate School of Mathematics, Nagoya University. (By Professor Hideyuki Ishi).

Organized Conferences and Events

- Workshop: *Les orbites infiniment petites, Etude des structures*. University of Metz. 1993-1994.
- Workshop: *Les Ondelettes selon Yves Mayer et Pierre Lemarié*. University of Metz. 1997-1998. (with Professor Jean Ludwig).
- Weekly seminar: Harmonic Analysis and Representations. (Faculty of Sciences of Sfax).
- Journées d'Analyse harmonique. Faculty of Sciences of Sfax, with the participation of Professors: D. Arnal (Metz), J-C. Cortet (Dijon) and H. Fujiwara (Japan). July 2000.
- Workshop: *La formule de Plancherel et le Théorème de Paley-Wiener*. (Faculty of Sciences of Sfax. April-June, 2000-2001).
- Journées de Physique Mathématique. Faculty of Sciences of Sfax, with the participation of Professors: J. Ludwig (Metz), D. Manchon (Nancy) and G. Litvinov (Russia). October 2001.

- Troisième Journées d'analyse harmonique. Faculty of Sciences of Sfax, with the participation of Professors: H. Fujiwara(Japan), M.S. Khalgui (Tunis), J. Ludwig (Metz), K. Mokni (Monastir) and K. Trimeche (Tunis). September 2003.

- Co-organizer of the summer school « Analyse harmonique et Physique Mathématique ». Monastir-Sfax-Metz-Dijon qui aura lieu à Monastir en Septembre 2005.

<http://www.math.univ-metz.fr/%7Eepasquale/monastir05/Tunisie05.html>

- Cinquième Journées d'analyse harmonique. Faculty of Sciences of Sfax, June 13-14, 2005.

- Physique Mathématique et Analyse harmonique. Faculty of Sciences of Sfax, June 27-30 2006. For the honour of Professeur D. Arnal, H. Fujiwara et J. Ludwig for their sixtieth anniversary.

- Co-organizer of the International Conference of harmonic analysis and applications (ICHAA 2006). November 2006.

<http://ichaa.50webs.com/>

- Study Day « Groupes de Lie et Applications ». Faculty of Sciences of Sfax. June 2009.

- First Tunisian-Japanese Conference on Harmonic Analysis and Geometry. (Kerkenah-Sfax. November 2009).

<http://www2.math.kyushu-u.ac.jp/~tnomura/JSPSMHESRT/Kerkennah.html>

- Second Tunisian-Japanese Conference on Geometric and Harmonic Analysis on homogeneous spaces and applications. (Sousse, 2010).

<http://www2.math.kyushu-u.ac.jp/~tnomura/SousseConf/>

- Study Day « Groupes et Algèbres ». Faculty of Sciences of Sfax. September 2012.

<http://mims.tn/events-and-calendar.php?id=19>

- MIMS distinguished lecture : **Sir Michael Atiyah** Cité des Sciences. Tunis. October 2012. (Co-organizer).

<http://mims.tn/events-and-calendar.php?id=18>

- Third Tunisian-Japanese Conference on Geometric and Harmonic Analysis on homogeneous spaces and applications. (Hammamet, 2013).

<http://www2.math.kyushu-u.ac.jp/~tnomura/HammConf/>

- Fourth Tunisian-Japanese Conference on Geometric and Harmonic Analysis on homogeneous spaces and applications. (Monastir, 2015).

<http://www2.math.kyushu-u.ac.jp/~tnomura/Monastir/>

- Fifth Tunisian-Japanese Conference on Geometric and Harmonic Analysis on homogeneous spaces and applications. (Mahdia, 2017).

<http://www2.math.kyushu-u.ac.jp/~tnomura/Mahdia/>

- Sixth Tunisian-Japanese Conference on Geometric and Harmonic Analysis on homogeneous spaces and applications. (Djerba, 2019).

<https://sites.google.com/view/tunisian-japanese-conference/home/2019-6th>

Scientific Journals

I am serving at the time being as an editor at the following mathematics journals:

- **Advanced in Pure and Applied Mathematics.**

<http://www.degruyter.de/journals/apam/detailEn.cfm?sel=he>

- **International Journal of Open Problems in Computer Science and Mathematics.**

<http://www.emis.de/journals/IJOPCM/>

- **The Graduate Mathematical Student Diary.**

http://edirect-dev.info/journal_mathematic/editorial-board/

Other Research Activities

•• Head of the Research Unit : « *Représentations des groupes de Lie et fonctions spéciales* » DGRST, code : 00/UR/ 15-01.

•• Head of the DGRSRT-CNRS Project : Sfax-Clermont Ferrand, « *Opérateurs différentiels sur les espaces homogènes et théorie des représentations* », code 01/R/15-04(2000-2003).

•• Head of the CMCU Project Sfax-Dijon, « *Quantification et Analyse harmonique* », code 06/S/15-01(2006-2009).

•• Head of the Laboratory: « *Applied Mathematics and Harmonic Analysis: LAMHA* » DGRST, code: LR ES 11 S 52.

•• Deputy Director of the Mediterranean Institute of Mathematical Sciences. <http://mims.tn/>

•• President of the Tunisian Mathematical Society. Since April 2016. <http://www.tms.rnu.tn>

•• Member of the Tunisian academy of Sciences, Letters and Art: House of wisdom. Since January 2017. <http://www.beitalhikma.tn>