Curriculum Vitae

Last Name : **REBIAI**
First Name: **SALAH-EDDINE**
Place of birth: Timgad, Algeria
Date of birth: 28-01-1963
Professional address: Department of Mathematics, University of Batna2, Batna, Algeria
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Degrees with institutions and dates:
- D.E.S. in Mathematics, University of Batna, Algeria, 1985
- M. Sc. in Mathematics, University of Warwick, U.K. 1988 (Supervisor: Prof. A. J. Pritchard).
- Ph. D. in Applied Mathematics, University of Sheffield, U.K. 1991 (Supervisor: Prof. A. S. I. Zinober)

Linguistics Proficiency:
- Mother tongue: Arabic.
- Other languages: French, English

Professional Experience:
- Lecturer in Mathematics, University of Batna, September 1991- March 1996.
- Reader in Mathematics, University of Batna, March 1996-December 2003.
- Professor in Mathematics, University of Batna, December 2003- present
- Head of the Department of Mathematics at the University of Batna, June 1999-2006.
- President of the Scientific Committee of the Department of Mathematics, University of Batna, May 2006 – March 2011.
- Director of the « Laboratoire des Techniques Mathématqiues en vue d'Applications: Aspects Stochastiques et Déterministes », August 2009 - present.
- Dean of the Faculty of Mathematics and Computer Science, University of Batna 2, October 2015- November 2017.

Research interests: Control theory for distributed parameter systems

List of publications
Refereed Articles

1- L. Moumen, F.Z. Sidiali and **S.-E. Rebiai**, *Stabilization of an interconnected system of Schrödinger and wave equations with boundary coupling,* Evolution Equations and Control Theory, Vol. 12, pp. 1473-1491, 2023.

2- L. Moumen and **S.-E. Rebiai**, *Exponential stability of the transmission wave equation with a distributed delay term in the boundary damping*, Rend. Circ. Mat. Palermo, II. Ser (2022). https://doi.org/10.1007/s12215-022-00834-8.

3- A. Saci and **S.-E. Rebiai,** *An inverse problem for the Schrödinger equation with Neumann boundary condition*, Advances in Pure and Applied Mathematics, Vol.14, pp. 50-69, 2023.

4- A. Merghad and **S.-E. Rebiai**, *Controllability radius for infinite dimensional systems*, Applied Mathematics E-Notes, Vol.23, pp. 187-191, 2023.

5- A. Kameche, H. Makheloufi, M. Kada and **S.-E. Rebiai**, *New general decay rates of solutions for an abstract semilinear stochastic evolution equation with an infinite memory,* Nonlinear Studies, Vol. 29, No. 2, 2022.

6- W. Ghecham, **S.-E. Rebiai** and F.Z. Sidiali, *Stability of the transmission plate equation with a delay term in the moment feedback control,* Mathematical Methods in the Applied Sciences, https://doi.org/10.1002/mma.6572**.**

7- W. Ghecham, **S.E. Rebiai** and F.Z. Sidiali, *Stabilization of coupled wave equations with boundary or internal distributed delay*, Applicable Analysis, https://doi.org/10.1080/00036811.2020.1712366

8- W. Ghecham, **S.E. Rebiai** and F.Z. Sidiali, *Uniform boundary stabilization of the wave equation with a nonlinear delay term in the boundary conditions,* In Analysis, Probability, Applications and Computation, Proceedings of the 11th ISAAC Congress, Växjö (Sweden), 2017, K.-O. Lindahl et al. (eds), pp. 561-568.

9- B. Aksas and **S.E. Rebiai**, *Uniform stabilization of the fourth order Schrödinger equation*, Journal of Mathematical Analysis and Applications, Vol. 446, pp. 1794-1813, 2017.

10- B. Aksas and **S.E. Rebiai**, *Stabilization of the fourth order Schrödinger Equation,* New Trends in Analysis and Interdisciplinary Applications, Selected publications of the 10th ISAAC Congress, Macau, 2015, Pei Dang et al. (eds), pp. 529-535. (This an abridged version of 9).

11- **S.E. Rebiai** and F.Z. Sidiali, *Uniform exponential stability of the transmission wave equation with a delay term in the boundary feedback* , IMA Journal of Mathematical Control and Information (2014), doi: 10.1093/imamci/dnu021

12- **S.E. Rebiai** and F.Z. Sidiali, *Exponential stability of compactly coupled wave equations with delay terms in the boundary feedback,* System Modeling and Optimization, 26th IFIP TC 7 Conference, CSMO 2013, Klagenfurt, Austria, September 9-13, 2013, Revised selected papers, C. Pötzsche et al. (Eds.): CSMO 2013, IFIP AICT 443, pp. 278-284, 2014.

13- I. Allag and **S. E. Rebiai**, *Well-posedness, regularity and exact controllability for the problem of transmission of the Schrödinger equation,* Quarterly of Applied Mathematics. Vol. LXXII, pp.93-108, 2014.

14- **S. E. Rebiai**, *Exponential stability of the system of transmission of the wave equation with a delay term in the boundary feedback,* Tin D. Hömberg and F. Tröltzsch (Eds): CSMO 2011, IFIP AICT 391, pp. 276-285, 2013.

15- M. Kada and **S. E. Rebiai**, *Stability radii of infinite-dimensional systems subjected to unbounded stochastic perturbations*, Systems and Control Letters, 61, 24-30, 2012

16- S. Nicaise and **S. E. Rebiai**, *Stabilization of the Schrödinger equation with a delay term in boundary or internal feedback*, Portugaliae Mathematica, 68, pp. 19 – 39, 2011.

17- **S. E. Rebiai**, *Conservative Control Systems Described by the Schrödinger Equation*, A. Korytowski et al (Eds), System Modeling and Optimization , IFIP AICT 312, pp. 448-458, 2009.

18- M. Kada and **S. E. Rebiai**, *Stability radii of infinite dimensional systems with stochastic uncertainty and their optimization*, Inter. J. Robust Nonlinear Control 16 (2006), 819-841.

19- **S. E. Rebiai**, *Boundary stabilization of Schrödinger equations with variable coefficients*, African Diaspora J. Mathematics 1 (2004), 33-42.

20- **S. -E. Rebiai**, *Uniform energy decay of Schrödinger equations with variable coefficients*, IMA Journal of Mathematical Control and Information (2003) 20, 335-345.

21- **S.-E. Rebiai** and A.S.I. Zinober, *Stabilization of uncertain distributed parameters,* International Journal of Control, 1993, Vol. 57, No. 5, pp. 1167-1175.

22- **S.-E. Rebiai** and A.S.I. Zinober, *Stabilization of uncertain boundary control systems,* International Journal of Robust and Nonlinear Control, 1993, Vol. 3, pp. 155-167.

23- **S.-E. Rebiai** and A.S.I. Zinober, *Stabilization of infinite dimensional systems by nonlinear boundary control,* Pure Maths and Application, 1993, Vol. 4, No. 1, pp.75-82.

24- **S.-E. Rebiai** and A.S.I. Zinober, Nonlinear boundary control of uncertain infinite dimensional systems, IFAC Proceedings Volumes, Vol. 26, pp. 39-42, 1993.

25- **S.-E. Rebiai**, A.S.I. Zinober and S. Scala, *Practical stabilizing control of uncertain diffusion systems*, IFAC Proceedings Volumes, Vol. 24, pp. 439-444, 1991.

Conferences presentations

1- **S.E. Rebiai** and A.S.I. Zinober, *Stabilization of distributed parameter systems,* IEEE International Workshop on Variable Structure Systems and their Applications VSS-90, March 1990, Sarajevo, 17-25.

2- **S.E. Rebiai**, A.S.I. Zinober and S. Scala, *Practical stabilizing control of uncertain diffusion systems,* First IFAC Symposium on Design Methods of Control Systems, Zurich, 4-6 September, 1991, 691-696.

3- **S.E. Rebiai** and A.S.I. Zinober, *Stabilizing boundary control of uncertain heat equation,* 30th IEEE Conference on Decision and Control, 11-13 December 1991, Brighton (England), 2142-2147.

4- **S.E. Rebiai** and A.S.I. Zinober, *Stabilization of infinite dimensional systems by nonlinear boundary control,* IEEE International Workshop on Variable Structure and Lyapunov Control of Uncertain Dynamical Systems, September 1992, Sheffield (England), 130-134.

5- I. Hamchi and **S.E. Rebiai**, *Contrôlabilité exacte de l'equation de Schrodinger*, Troisième Conférence Maghrébine sur les Equations Différentielles et leurs Applications, 15-17 November 1999, Jijel, Algeria.

6- I. Hamchi and **S.E. Rebiai**, *Stabilisation exponentielle de l'équation de Schrodinger*, Congrés National de Mathématiques /99, 17-19 May 1999, Annaba, Algeria.

7- **S.E. Rebiai** - *Exact controllability of the Schrödinger equation with Robin control,* Quatrième conférence Maghrébine sur les Equations Différentielles et leurs Applications, 24-26 October 2000, Setif, Algeria.

8- M. Kada and **S.E. Rebiai**, *Riccati equations with indefinite quadratic term,* Conférence RAMA II, 19-21 November 2000, M'Sila, Algérie.

9- **S. E. Rebiai**, *Boundary stabilization of the Schrödinger in almost star-shaped domain*, Equadiff. 10, 27-31 August 2001, Prague.

10- **S. E. Rebiai**, *Boundary stabilization of Schrödinger equations with variable coefficients,* ICM 2002, Beijing (China), August 20-28.

11- **S. E. Rebiai**, *Boundary stabilization of the wave equation with variable coefficients,* Proceedings European Control Conference ECC-2003 (CD-ROM), Cambridge (United Kingdom), 1-4 September 2003.

12- **S. E. Rebiai**, *Uniform stabilization of the Euler-Bernoulli equation with variable coefficients*, Proceedings MTNS-2004 (CD-ROM), Leuven (Belgium) 5-9 July 2004.

13- A. Benbrahim and **S. E. Rebiai**, *Stabilization frontière de l'équation des ondes par un feedback frontière nonlinéaire,* RAMA4, Setif (Algeria), 26-69 April 2004.

14- I. Allag and **S.E. Rebiai**, *Exact boundary controllability of Coupled Schrödinger equations with variable coefficients*, Proceedings MTNS-2006 (CD-ROM), Kyoto (Japan) 24-28 July 2006.

15- I. Allag and **S.E. Rebiai**, *Contrôlabilité exacte frontière pour un système d'équations de Schrödinger couplées,* Seminaire Internationale de Mathématiques Appliquées et Simulations, Oum-El Bouaghi (Algeria), 22-25 April 2007.

16- N. Abdesselam and **S. E. Rebiai**, *Stabilisation de l'équation de Schrödinger par un feedback frontière de type mémoire,* Troisième Colloque sur les tendances dans les applications des mathématiques en Tunisie, Algérie, Maroc, Alger (Algeria), 16-18 April 2007.

17- **S. E. Rebiai**, *A Conservative control system described by the Schrödinger equation,* 23rd IFIP TC 7 Conference on System Modelling and Optimization, 23-27 July 2007, Cracow, Poland.

18- I. Allag and **S.E. Rebiai**, *Régularité de l'équation de Schrödinger à coefficients variables avec contrôle et observation frontières, Rencontre sur l'Analyse Mathématique et ses Application*s, Tizi-Ouzou, 26-28 Aprill 2008.

19- I. Allag and **S.E. Rebiai**, *Well-posedness and regularity of the Schrödinger equation with variable coefficients and boundary control and observation*, Proceedings MTNS-2008 (CD-ROM), Virginia Tech., 28 July – 1 August 2008.

20- **S.E. Rebiai**, *Well-posedness and regularity of the problem of transmission of the Schrödinger equation with variable coefficients*, International Conference on Recent Advances in Mathematical Sciences and Applications (RAMSA'09), Visakhapatnam (India), 19-22 December 2009.

21- **S.E. Rebiai**, *Well-posedness, regularity and exact controllability for the problem of transmission of the Schrödinger equation*, Proceedings MTNS-2010 (CD-ROM), Budapest (Hungary), 5-9 July 2010.

22- **S.E. Rebiai**, *Exponential stability of the system of transmission of the wave equation with a delay term in the boundary feedback,* 25th IFIP TC 7 Conference on System Modeling and Optimization, Berlin (Germany), September 12 –16, 2011.

23- **S.E. Rebiai**, *Exponential stability of the system of transmission of the wave equation with a delay term in the boundary feedback,* International Conference on Mathematical Sciences, Nagpur (India), December 28-31, 2012.

24- **S.E. Rebiai** and F.Z. Sidi Ali, *Exponential stability of compactly coupled wave equations with delay terms in the boundary feedbacks,* 26th IFIP TC 7 Conference on System Modeling and Optimization, Klagenfurt (Austria), September 8-13, 2013.

25- **S.E. Rebiai** and F.Z. Sidi Ali, *Stabilization of compactly coupled Euler-Bernoulli equations with delay terms in the boundary conditions,* International Congress of Mathematicians, Seoul (Korea), August 13-21, 2014.

26- B. Aksas and **S.E. Rebiai**, *Stabilization of the fourth order Schrödinger equation,* 10th International ISAAC Congress, Macao (China), August 3-8, 2015.

27- W. Ghecham and **S.E. Rebiai**, *Uniform boundary stabilization of the wave equation with a nonlinear delay term in the boundary conditions,* 11th International ISAAC Congress, Växjö (Sweden), 14-18 August 2017.

28- W. Ghecham, **S.E. Rebiai** and F.Z. Sidiali, *Uniform boundary stabilization of the Schrödinger equation with a nonlinear delay term in the boundary conditions,* 23rd International Symposium on Mathematical of Networks and Systems, Hong Kong, July 16-20, 2018.

29- W. Ghecham, **S.E. Rebiai** and F.Z. Sidiali, *Stability of the transmission plate equation with a delay term in the moment feedback control*, "8th International Eurasian Conference on Mathematical Sciences and Applications (IECMSA-2019)" Baku, AZERBAIJAN, August 27–30, 2019.

Doctoral theses supervised

1. M. Kada, *Robustness of infinite dimensional stochastic systems*, defended in 2009.
2. F.Z. Sidiali, *Stabilité et stabilisation des systèmes linéaires à paramètres distribués avec retards*, defended in 2015.
3. B. Aksas, *Recherche de trajectoires optimales dans une classe de systèmes différentiels complexes : Système de Schrödinger du quatrième ordre*, defended in 2017.
4. I. Allag, *Systèmes linéaires réguliers*, defended in 2018.
5. W. Ghecham, *Stabilisation de quelques systèmes d'évolution avec retards*, defended in 2020.
6. A. Saci, *Problèmes inverses pour des équations aux dérivées partielles*, submitted.
7. L. Moumen, *Stabilisation des systèmes interconnectés avec retards*, submitted.

Short term research visits

1- Department of Applied and computational Mathematics, University of Sheffield (UK), May-June 2003, October 2004.
2- Department of Mathematics, University of Bath (UK), October 2008.
3- LAMAV, Université de Valenciennes et du Hainaut Cambrésis, Valanciennes (France), February 2009.
4- Department of Aeronautical and Automotive Engineering, University of Loughborough (UK), September 2010.
5- Department of Mahematics, University of Leeds (UK), May-June 2012.
6- Department of Mathematics, University of Liverpool (UK), April 2014.

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