



- Surname : SADOK
- First name : Hassane
- 61 years old
- Married with three childrens
- Full Professor and President of the University of Littoral, France
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Begin Taekwondo in 1980. 7°DAN.

• administrative position	• Period
<ul style="list-style-type: none"> • Member of the Taekwondo executive committee of the league of Nord Pas de Calais. 	<ul style="list-style-type: none"> • 1996-1998
<ul style="list-style-type: none"> • - Creation and Presidency of the Taekwondo Club of Sainghin en Mélançois. • - Treasurer of the Taekwondo league of Nord Pas de Calais. • - President of the Taekwondo league of Nord Pas de Calais. • • - Member of the FFTDA executive committee • • - President of the Taekwondo League of Nord Pas de Calais • - <u>Secretary General of the French federation (FTDA)</u> • - Member of the FFTDA Executive Committee • - Treasurer of the Taekwondo League of Haut-de-France. • 	<ul style="list-style-type: none"> • 1998- • 1998-2000 • • 2000-2004 • • 2004-2008 • 2008-2016 • 2016-2018
<ul style="list-style-type: none"> • - <u>Vice-President of the FFTDA</u> • - Treasurer of the Taekwondo League of Haut-de-France • 	<ul style="list-style-type: none"> • 2018-2020
<ul style="list-style-type: none"> • - <u>President of the FFTDA</u> • • 	<ul style="list-style-type: none"> • 2020 - 2024
<ul style="list-style-type: none"> • Council member of WT Europe 	<ul style="list-style-type: none"> • 2021 ->

Curriculum Vitae

Hassane SADOK

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University service :

- President of the university of Littoral, France, 2016-present
- First vice president of the university of Littoral, France, 2012-2016
- Vice Chairman of the Board of the university of Littoral, France, 2012-2020
- director of the research center of Calais, France, 1998-2012.
- Director of the Mathematics Laboratory of the university of Littoral, 2008-2015.
- Chair, Head of 20 selection committee (10 assistant and associate Professor and 10 Assistant Professor)

Education :

- HDR (Habilitation à diriger des recherches en sciences mathématiques, University of Lille1, 1994.
- Phd, University of Lille1, 1988.
- Doctorat de 3ème cycle en mathématiques appliquées, University of Lille1, 1986.
- DEA (Master program in applied maths), University of Lille1, 1984.
- Maitrise (Master program in applied maths), University of Lille1, 1983.
- Licence (Bachelor program in maths), University of Lille1, 1982.

Employment

- Professor (Classe Exceptionnelle), University of Littoral, 2011-present.
- Full Professor, University of Littoral, 2005-2011.
- Associate Professor, University of Littoral, 1994-2005.
- Assistant Professor, University of Lille1, 1989-1994.
- Associate Assistant, University of Lille1, 1987-1989.
- Lecturer, University of Lille1 and Ecole Centrale de Lille, 1984-1987.

Research Interests : Numerical Analysis and Scientific Computing

- Numerical Linear Algebra.
- Approximation.
- Ill-posed problems.
- Vector extrapolation methods.
- Numerical algorithms for PDE.

Memberships in Professional Societies

- SIAM, SMAI, SM2A.

Phd Students

- Mohammed Heyouni, 1996.
- Laurent Smoch, 1999.
- Ahmed El guennouni, 2000.
- Alain-Jérôme Riquet, 2002.
- Rkia Bouyouli, 2005.
- Abdellatif Tinzefté, 2006.
- Lakhdar Elbouyahyaoui, 2009.
- Sébastien Duminil, 2012.
- Archid Atika , 2013.
- El-Moallem Rola , 2013.
- Achraf Badahmane , 2019

Editorial Work

- Editor, Numerical algorithms, 2002-present.
- Editor, Electronic Transactions on Numerical Analysis (Etna), 2011-present.
- Guest Managing Editor, Applied Numerical Math., 2008-2010.

- Guest Editor, Applied Numerical Math., 2009-2013.
- Guest Editeur, Journal of Computational and Applied, Mathematics, 2010-2012.

Recent Invited presentation

1. M2A19: Mathematical Modeling with Applications, Rabat, Morocco, April 1–4, 2019. Convergence Analysis of some Krylov subspace methods for linear systems of equations with one or several right hand sides
2. NASCA18: Numerical Analysis and Scientific Computing with Applications, Kalamata, Greece, July 2–6, 2018. Review of the convergence of some Krylov subspaces methods for solving linear systems of equations with one or several right hand sides.
3. THE FOURTH INTERNATIONAL CONFERENCE ON NUMERICAL ALGEBRA AND SCIENTIFIC COMPUTING (NASC 2012) Dalian University of Technology, Dalian, P.R. China. October 20-24, 2012. Review of Algebraic and Convergence Properties of Krylov Subspace Methods.
4. SIAM Conference on Applied Linear Algebra, Valencia, Spain, 18-22 June 2012. Convergence properties of GMRES and RRGMRRES method for ill posed problems.
5. Conference on the Foundations of Computational Mathematics, Budapest, Hongrie, July 4-14, 2011. Convergence Analysis of the conjugate gradient method.
6. Householder Symposium XVIII on Numerical Linear Algebra, Tahoe City, California, USA, June 12-17 2010.
A new Approach to GMRES convergence.

Organization of Conferences

1. Organizing Committee, 4th International Symposium on “Orthogonal Polynomials and their Applications”, Evian, France, 19-23 octobr 1992.
2. Organizing Committee, Congress on Numerical on Numerical Methods for Partial Differential Equations, Marrakech, Morocco, September 14–18, 1998.
3. Organizing Committee, International Conference on Numerical Algorithms, Marrakech, Morocco, October 1–5, 2001.
4. Organizing Committee, International Conference on Approximation and Iterative Methods, Lille, June 22–23, 2006.
5. Organizing Committee, 9th IMACS International Symposium on Iterative Methods in Scientific Computing, Lille, March 17-20, 2008.
6. Organizing Committee, Numerical Analysis and Scientific Computation with Applications”, Agadir, Maroc, May 18-22, 2009.

7. Organizing Committee, Inverse Problems, Computation, and Applications (I.P.C.A. 2010) , CIRM Luminy, 31May - 4 june 2010.

Publications

- Messaoudi, A.; Sadaka, R.; Sadok, Matrix recursive polynomial interpolation algorithm: an algorithm for computing the interpolation polynomials *Journal of Computational and Applied Mathematics*, 373 (2020).
- Reichel L., Sadok H., and Zhang W., Simple stopping criteria for the LSQR method applied to discrete ill-posed problems. *Numer. Algorithms*, 84 (2020), 1381-1395.
- Badahmane, A.; Bentbib, A. H.; Sadok, Preconditioned Krylov subspace and GMRHSS iteration methods for solving the nonsymmetric saddle point problems. *Numer Algorithms*, 84 (2020), 1295-1312.
- Badahmane, A.; Bentbib, A. H.; Sadok, H. Preconditioned global Krylov subspace methods for solving saddle point problems with multiple right-hand sides. *Electron. Trans. Numer. Anal.* 51 (2019), 495–511.
- Messaoudi, A.; Sadaka, R.; Sadok, H. New algorithm for computing the Hermite interpolation polynomial. *Numer. Algorithms* 77 (2018) 106–1092.
- Addam, M.; Heyouni, M.; Sadok, H. The block Hessenberg process for matrix equations. *Electron. Trans. Numer. Anal.* 46 (2017), 460–473.
- Bellalij, M.; Meurant, G.; Sadok, H. The distance of an eigenvector to a Krylov subspace and the convergence of the Arnoldi method for eigenvalue problems. *Linear Algebra Appl.* 504 (2016), 387–405.
- Bouhamidi, A.; Jbilou, K.; Reichel, L.; Sadok, H.; Wang, Z. Vector extrapolation applied to truncated singular value decomposition and truncated iteration. *J. Engrg. Math.* 93 (2015).
- Fast solvers for discretized Navier-Stokes problems using vector extrapolation (with S. Duminil and D. Silvester). *Numerical Algorithms, Appl. Numer. Math.* 94 (2015), 209-221.
- Bellalij, M.; Reichel, L.; Sadok, H. Some properties of range restricted GMRES methods. *J. Comput. Appl. Math.* 290 (2015), 310–318.
- Bellalij, M.; Reichel, L.; Rodriguez, G.; Sadok, H. Bounding matrix functionals via partial global block Lanczos decomposition. *Appl. Numer. Math.* 94 (2015), 127–139.
- Jbilou, K.; Sadok, H. Matrix polynomial and epsilon-type extrapolation methods with applications. *Numer. Algorithms* 68 (2015), no. 1, 107–119.
- On investigating GMRES convergence using unitary matrices (with J. Duintjer Tebbens, G. Meurant and Z. Strakos), *Linear Algebra Appl.*, 450 (2014) 83–107.

- Vector extrapolation applied to algebraic Riccati equations arising in transport theory.(with R. El-Moallem). *Elect. Trans. Num. Anal.*, 40 (2013) pp. 489–505
- A new look at CMRH and its relation to GMRES (with D. Szyld). *BIT Numer. Math.* 52 (2012) 485–501.
- Implementations of range restricted iterative methods for linear discrete ill-posed problems (with A. Newman and L. Reichel). *Linear Algebra Appl.* , 436 (2012) 3974–3990.
- CMRH method as iterative solver for boundary element acoustic systems. (with A. Alia and M. Souli), *Engineering Analysis with Boundary Elements. Engineering*, 36 (2012) 346-350.
- Algorithms for range restricted iterative methods for linear discrete ill-posed problems (with A. Newman and L. Reichel). *Numer. Algorithms*, 59 (2012) 325-331.
- A generalized global Arnoldi method for ill-posed matrix equations (with A. Bouhamidi, K. Jbilou, L. Reichel) , *Journal of Computational and Applied Mathematics*236 (2012) 2078-2089.
- Reduced rank extrapolation applied to electronic structure computations (with S. Duminil) *Electron. Trans. Numer. Anal.* 38 (2011) 347-362.
- An Extrapolated TSVD for linear Discrete Ill-posed problems with Kronecker structure (with A. Bouhamidi, K. Jbilou and L. Reichel) *Linear Algebra Appl.*, 434 (2011) 1677-1688
- Further Analysis of the Arnoldi process for eigenvalue problem (with M. Bellalij and Y. Saad), *SIAM Journal of Numerical Analysis.* *SIAM J. Numer. Anal.* 48 (2010) pp. 393–407
- Algebraic Properties of Block Arnoldi algorithm and Block GMRES method (with L. El Bouyahyaoui and A. Messaoudi), *Elect. Trans. Num. Anal.*, 33 (2009) pp. 207–220.
- Vector extrapolation enhanced TSVD for linear discrete ill-posed problems (with K. Jbilou, L. Reichel). *Numerical Algorithms*, 51 (2009) 195 –208.
- New results on the convergence of the Conjugate Gradient method. with (R. Bouyouli, G. Meurant and L. Smoch). *Numerical Linear Algebra and Applications*, 16 (2009) pp. 223 – 236.
- Analysis of some Krylov subspace methods for normal matrices via approximation theory and convex optimization (with M. Bellalij and Y. Saad). *Elect. Trans. Num. Anal.*, 33 (2008) 17-30.
- New convergence results on the global GMRES method for diagonalizable matrices. (with M. Bellalij and K. Jbilou). *Journal of Computational and Applied Mathematics*, (2008) pp. 350-358.
- A new L-curve for ill-posed problems (with Lothar Reichel). *Journal of Computational and Applied Mathematics*, 219 (2008) pp. 493-508.
- A new implementation of the CMRH method for solving dense linear systems. (with M. Heyouni). *Journal of Computational and Applied Mathematics.* 213 (2008) 387–399.
- Greedy Tichonov Regularization for Large Linear ill-posed problems, (with L. Reichel and A. Shyshkov), *International Journal of Computer Mathematics*, 84(2007) pp. 1155–1166.

- On Block Minimal Residual methods. (with R. Bouyouli, K. Jbilou and A. Messaoudi). *Applied Mathematics Letters*, 20 (2007) 284–289.
- Convergence properties of some block Krylov subspace methods for multiple linear systems, (with R. Bouyouli, K. Jbilou and R. Sadaka), *J. Compt. Appl. Math.*, 196 (2006) 498–511.
- On the convergence of the minimal and the orthogonal residual methods, *Numerical Algorithms*, 40 (2005) 201–206.
- Oblique projection methods for linear systems with multiple right-hand sides, (with K. Jbilou and A. Tinzefte), *Elect. Trans. Numer. Anal.*, 20 (2005) 119–138.
- The block-Lanczos method for linear systems with multiple right-hand side. (with A. El Guennouni et K. Jbilou), *Appl. Numer. Math.*, 51 (2004) 243–256.
- A review of orthogonality in Lanczos based methods (with C. Brezinski and M. Redivo Zaglia) *J. Compt. Appl.*, 140 (2002) 81–98.
- The matrix and polynomial approaches to Lanczos-type algorithms (with C. Brezinski and M. Redivo Zaglia) *J. Compt. Appl. Math.*, 123 (2000) 241–260.
- Vector extrapolation methods. Applications and numerical comparison. (with K. Jbilou) *J. Compt. Appl. Math.*, 122 (2000) 149–165.
- CMRH: A new method for solving nonsymmetric linear systems based on the hessenberg reduction algorithm, *Numerical Algorithms*, 20 (1999) 303–321.
- Global GMRES algorithm for solving nonsymmetric linear systems of equations with multiple right-hand sides. (with K. Jbilou and A. Messaoudi). *Applied Num. Math.*, 31 (1999) 49–63.
- New implementations of some look-ahead Lanczos-type algorithms for solving linear systems. (with C. Brezinski and M. Redivo Zaglia) *Numer. Math.*, 83 (1999) 53–85.
- LU-implementation of the modified minimal polynomial extrapolation method for solving linear and non linear systems. (with K. Jbilou) *IMA J. Numer. Anal.*, 19 (1999) 549–561.
- On a variable smoothing procedure for Krylov subspace methods. (with M. Heyouni) *Linear Algebra Appl.*, 268 (1998) 131–149.
- New interpretation of related Huang’s methods. (with M. Bellalij). *Linear Algebra Appl.*, 269 (1998) 183–195.
- New look-ahead implementations of Lanczos method for Unsymmetric Systems. (with C. Brezinski and M. Redivo Zaglia). Dans ”Iterative Methods in Scientific Computation”, (1998) pp.9–14.
- Problems of breakdown and near-breakdown Lanczos-based algorithms. (with C. Brezinski and M. Redivo Zaglia)
 Dans “Algorithms for Sparse large Scale Linear Algebraic Systems: State of the Art and Applications in Science and Engineering”, G. Winter ed., Kluwer, Dordrecht, 1998, pp. 255–270.

- Breakdowns in the implementation of the Lanczos method for solving linear systems. (with C. Brezinski and M. Redivo Zaglia) *Comp. & Maths. with Appls.*, 33 (1997) pp. 73–89.
- Hybrid vector transformations. (with K. Jbilou) *J. Comput. Appl. Math.*, 81 (1997) 257–267.
- Analysis of some vector extrapolation methods for solving systems of linear equations. (with K. Jbilou). *Numer. Math.*, 70 (1995) pp. 73–89.
- Orthogonal polynomials and Lanczos method (with C. Brezinski and M. Redivo Zaglia). *Numerical Analysis*, Banach Center Publications, PWN, Warsaw. 29 (1994) pp. 19–33.
- Quasi-linear vector extrapolation methods. *Linear Algebra Appl.*, 190 (1993) pp.71-85.
- Lanczos type algorithms for solving systems of linear equations (with C. Brezinski). *Appl. Numer. Math.*, 11 (1993) pp. 443-473.
- Some vector sequence transformations with applications to systems (with C. Brezinski). *Numerical Algorithms* 3 (1992) 75-80.
- A breakdown-free Lanczos type algorithm for solving linear systems (with C. Brezinski and M. Redivo Zaglia). *Numer. Math.*, 63 (1992) 29-38.
- Addendum to "Avoiding breakdown and near-breakdown in Lanczos type algorithms" (with C. Brezinski and M. Redivo Zaglia). *Numerical Algorithms* 2 (1992) 133-136.
- Avoiding breakdown and near-breakdown in Lanczos type algorithms (with C. Brezinski and M. Redivo Zaglia). *Numerical Algorithms* 1 (1991) 261-284.
- A block bordering method for the treatment of breakdown in the biconjugate gradient algorithm (with C. Brezinski and M. Redivo Zaglia). Dans *Iterative Methods in Linear Algebra*, R. Beauwens and P. de Groen eds., North-Holland, 1992, pp. 445–447.
- Some results about vector extrapolation methods and related fixed point iterations. (with K. Jbilou). *J. Comput. Appl. Math.*, 36 (1991) 385-398.
- Avoiding breakdown in the CGS algorithm (with C. Brezinski and M. Redivo Zaglia). *Numerical Algorithms* 1 (1991), 199-206.
- About Henrici's transformation for accelerating vector sequences. *J. Comput. Appl. Math.*, 29 (1990) 101-110.
- Vector sequence transformations and fixed point methods (with C. Brezinski). Dans C. Taylor and al., eds., *Numerical Methods in Laminar and Turbulent Flows*, pp. 3-11, Swansea, 1987. Pineridge Press.