Prof. Amin Boumenir
Department of Mathematics
University of West Georgia
Carrollton, GA 30118
boumenir@westga.edu
work: 1-678-839-4131
Cell: 1-404-510-0570

Education

Degree	Institute	Years
B.Sc Mathematics	University of Science and Technology of Algiers D.E.S. Diplome Etudes Superieur en Mathematiques Option: PDEs and Functional Analysis	1977-1981
M.Sc. Mathematics	University of Oxford, UK Advisor: Prof. J.B. Mcleod, FRS Dissertation: Some problems on Nonlinear PDE: the Blow-up.	1982-1983
Ph.D. Mathematics	University of Oxford, UK Advisor: Prof. J.B. Mcleod, FRS Dissertation: The Inverse Spectral Problem and the Factorization	1983-1986

Honors:
- UWG Faculty Research Grant: Inverse Problems by Matrices — 2004
- UWG Graduate College Research Award — 2004
  Paper: The impedance tomography problem,
  Proc.Amer.Math.Soc. 131, 2003, no. 11, 3553—3557
- Member of the UWG Graduate College faculty — 2002
- The 1998 SHOMAN Foundation Prize in Mathematics for Young Arab Scientist. — 1999
- President's National Prize Award, BAC Math, Honors, — 1977.

Professional Growth:

Membership and offices in scholastic honoraries:
Reviewer for Mathematical Reviews, AMS, 2002-present
Reviewer for Zentralblatt, EMIS, 2002-present.

Membership and offices in professional societies:
American Mathematical Society, 1992-present
Society for Industrial Applied Mathematics, 2001-2002

EXPERIENCE:

Date	Title	Department and Institute
January 2015- Present	Professor	Mathematics, UWG, Carrollton, GA 30118
July 2010-December 2014	Professor	Mathematics, Kuwait University, Kuwait.
July 2009- July 2010	Professor	Mathematics, UWG, Carrollton, GA 30118
July 2006-July 2009	Associate Professor	Mathematics, UWG, Carrollton, GA30118
August 2001 - July 2006	Assistant Professor	Mathematics, UWG, Carrollton, GA30118
August 2000- August 2001	Visiting Professor	Mathematics, Moravian, Bethlehem, PA18018
August 1998- August 2000	Associate Professor	Mathematics, Sultan Qaboos University, Oman

August 1995- August 1998	Associate Professor	Mathematics, KFUPM, Dhahran, Saudi Arabia
		King Fahd University of Petroleum and Minerals
August 1988- August 1995	Assistant Professor	Mathematics KFUPM, Dhahran, Saudi Arabia
August 1987- August 1988	Assistant Professor	Mathematics, USTA, Algiers, Algeria
		University of Science and Technology of Algiers
August 1986- August 1987	Research Fellow	Mathematics, University of Birmingham U.K.
	Post-Doctoral position	&University of Wales (joint appointment)

SERVICE TO THE INSTITUTE:

University wide Committees:
FASP: Faculty Staff and Personnel, member, 2004-2006.
TEAC: Teacher Ed Advisory Committee, 2006-2008.
Exam Committee:2010-2014 Kuwait University
Graduate Committee: 2010-2014 Kuwait University
FDC: Faculty Development Committee 2018-Present
Senator 2019-2021

Mathematics Department Committees:,
Undergraduate committee, 1988-1995 (Member);Postgraduate committee, 1995-1998 (Member); Senior projects officer, 1998, Math 202 (Diff-Equations) coordinator (1996); Ph.D. Committee, 1996-1998; Teaching load committee, 1998-2000.Assessment 2001-2002 (Member); Search in Applied Math 2001 (Member); Search for Crider endowment chair 2002 (Member), Seminar-Colloquium 2001 (Chair); Scholarship 2001 (member); Faculty Evaluation and Teaching Load 2001-2002 (member), Undergraduate Curriculum Committee 2001-2003 (Member); Five year review 2002 (Member);Seminar-Colloquium 2002-present (Member); Graduate Committee 2002-2003 (Chair); Graduate Committee 2002-2003 (Member); Advisory 2003-2008, (elected member) ; Recruitment and Public relation 2003; Scholarship 2003-Present (member); Undergraduate Curriculum Committee 2004-2009 (Director); Search in Statistics 2004 (Chair); Liaison to computer science 2004-present; Computer Lab Boyd 205 2004, coordinator; Search in Math Ed 2006 (member). Promotion and Tenure 2006 (chair), Search in Statistics 2008(chair). Graduate Committee (Kuwait 2010-2014), UWG Dean Search (2015).

Counseling experience:
Ph.D. advisor for Mr.A. Shuabi (1992-1995), Ms.SarahSadhan (1997-2000),
Ph.D. Co-advisor at Mr. Abuzaid(1993-1996) and Mr G. Beg (1994-1997)
M.Sc. advisor Mr. Al-Hussain (1996) and Mr. Al Attas (1998).

Advisor for math majors in Applied Computational track
GEMS (CAS) proposal reform for Calculus I, summer 2004.
Helped develop program of study for Applied Computational track
Helped develop guidelines for Math 4893 senior project course
Helped write a draft for math major advising day (2003)
Helped in the Five years departmental review (2002)
Interviewed 2 students for the Advanced Academy- Honors College 2004-2005.
Reviewed a textbook in Differential equations by Nagle and Saff, Chap1-4, 6th Ed, Addison-Wesley. 2003
Reviewed a textbook on Precalculus, bu Coburn, McGrawHill, 2006.
External reviewer for a university funded project: The Numerical inversion of Laplace transform, 2003.

Participation in educational activities
Tutored the Math Team for competition in Problem Solving, Moravian College, Spring 2001.
Participated at a Geometer Sketchpad Workshop at GeorgiaStateUniversity, Atlanta, Feb 2003.

Prepared questions/grading for Math day March of 2001, 2002, 2003, 2004.
Attended a WAC retreat in spring 2002.
UWG, Visitation days, Sunday February 2003, Sunday 2004
Student advisor for Big Night, Sigma Xi Scientific Research Society, UWG chapter, April 2003
      Amy Richards, Radiation of Stars,
      Aaron Bignault, The Bungee problem
Students research (SRAP) 2005
      John Rohan, Level set methods in PDEs
      Adnan Veljii, A series solution nonlinear boundary problem;
      Research talk presented at MUUMaR (Mercer University Undergraduate Math.Research),Macon, GA.
Students Research GEMS, summer 2006
      Anna Marman, Power series for KPP equations
      Trequila Banks, Boundary Value problems

Helped a SACS committee member assess UWG computer labs in Teaching (2003)
Math placement test (VPAA) for new UWG students Summer 2003
Member of the Mathematics Department Seminars committee at UWG, 2001-2005.
Invited lecturers: Profs, I. Knowles, UAB (2002); A. Smirnova, GSU (2003); J. Nagy, Emory; (2004)
Avdonin, Alaska (2006), Charlotte (2005)
Workshop organized with Vu Tuan 1st UWG Workshop in Inverse Problem, Feb 13-14 2003.
Invited Speakers: Profs. D. Colton, V. Isakov and Z. Nashed
Workshop organized with Vu Tuan 2nd UWG Workshop in Sampling and Spectral Theory, April 8-9 2005
Invited Speakers: Profs. L. Littlejohn, H. Volkmer and A. Zayed.
Faculty Workshop UWG Organized with Karen Smith and Michele Joyner, April 13 2005:
Mathematical Ideas in Precalculus and Calculus.
Online practice test bank for College algebra 2007, WebCT vistaof RPG (Retention Progression Graduation), grant
Invited by Prof. S. Benachour to visit for one month(June 2007),   ElieCartan Institute, Nancy, France.
To work on the Kuramoto-Shivashinski equation.
Talk for students RAP August 29 2007 at UCC: invited by Dr. D. Hunter,
Title*: The steps to developing Math skills*

Senior projects: In Math 4893, students are asked to read amathematical research paper or a book chapter, understand it, write a 5-7 pages report on it and then present it to faculty. I had the following students
      Brooke Murray Interpolation and sampling
      Jeremy New   Fixed point theorems
      Jason Backus   Impossible constructions in Geometry
      LatriceSturgill The Jacobi Method
      Chris Atkinson Hermite interpolation
      Mathew High   The Gamma Function
      Robert Pittman Generating Functions and their Application in Partitions.
      Matthew Jones Eigenvalues of Toeplitz Matrices.
      Nia Hall   Sturm sequences for polynomials.
      Chris Allgood   RV functions and a Theorem of Avakumovic.

Publications:
1) A Comparison Theorem for Self-adjoint Operators,
    Proc. Amer. Math. Soc., 111, 1991, pp161-175.
2) Existence of a Solution of a Singular Nonlinear B.V.P.(with El-Gebeily and El-Gindi),
Jour. Comp. and Appl. Math. 46, 1993, pp345-355.
3) The Inverse Spectral Problem for the Degenerate Second Operator,
    Inverse Problems. 10. Number 5, 1994, pp1079-1097.
4) The Paley-Wiener Theorem and Factorization,
    Jour. Integral Equations Applications, 6, 2,1994, pp129-143.
5) The Transmutation Operator for 1/w(x) y''(x),
    Proc. Math. Soc. Edinburgh.A.125,1995, pp85-98.
6) Explicit Computation of the Spectral Function,
    Proc. Amer. Math. Soc. 123, 11, 1995, pp3431-3436.
7) On the Inverse of Integral Operators with Kernel Operators,
    Jour. Integral Equations. and Appl., 7,4,1995, pp371-392.
8) Transmutation of operators with disjoint spectra: (with R.W.Carroll)
    Applicable Analysis, 58, 1995, pp301-311.
9) Construction of a Transmutation,
    Journal of Mathematical Physics, 36, 1995, pp5305-5309.
10) Extending solutions Beyond Blow-up,
    Nonlinear Analysis, Theory and applications, 26, 40, 1996, pp 755-76.
11) Towards a General Theory of Transmutations:(with R.W. Carroll),
    Nonlinear Analysis, Theory and appli,12,1996, pp1923-936.
12) Study of the Blow-up set by transformation,
    Jour. Math. Anal. Appl.,201,1996, pp697-714.
13) Eigenvalues of S-L systems using sampling theory (with B. Chanane),
    Applicable Analysis, 62,1996, pp323-334.
14) Growth of the Spectral Function,
    Int. Jour. Math. Scie. 20, 3,1997, pp475-482.
15) Inverse spectral problem for the Laguerre Operator,
    Jour. Math. Anal. Appl . 224, 1998, pp 218-240.
16) Solution of a Helicoidal spring. (With S. Al Ghamdi),
    Theme issue in BVP. Arab. Jour. Scie. Eng 2A. 183-193, 1998.
17) The inverse Laplace transform and Pseudodifferential Operators (with Shuabi),
    Jour. Math. Anal. and Appl. 228, 1998, pp16-36.
18) The Boundary function under Neumann boundary conditions,
    Dyn. Cont. Dis. Imp. Sys. 5, 1,4 1999, pp 427-432.
19) Irregular sampling and the inverse spectral problem,
    Jour. Fourier. Anal. Appl. 5.3, 1999, pp 377-387.
20) Computing the eigenvalues of singular S-L of Bessel type (with B. Chanane),
    Proc. Roy. Soc. Edin. Soc. 42.2 1999, pp. 257-265.
21) A rigorous verification of a numerically computed eigenvalue,
    Comp. Math. with applications 38, 1999, pp 39-41.
22) Computing Eigenvalues of periodic Sturm-Liouville problems by the Shannon-Whittaker sampling theorem
    Math. Comp. 68, 1999, pp1057-1066.
23) The recovery of analytic potentials,
    Inverse Problems, 15, 6, 1999, pp1405-1423.
24) The sampling method for SL problems with the eigenvalue in the boundary condition,
    Numer. Funct.Anal. Optim. 21 , 1-2, 2000. pp67--75.

25) The Sampling method for the String,
   Applied. Math. Letters ,13, 2000, pp29-36.
26) Higher approximation of eigenvalues by sampling ,
   BIT 40, no. 2, 2000, pp 215--225.
27) Computing Eigenvalues of Lommel type equations by the sampling method,
   Jour.Comp. Analysis and Applications,.2, 4, 2000, pp323-332.
28) On the numerical inversion of the Laplace transform by optimized Legendre Polyns.(with A. Al-Shuaibi,)
Approx. Theory Appl. (N.S.) 16, 2000, no. 4, 17--32.
29) The computation of negative eigenvalues of singular S-L probs (with B. Chanane),
   IMA J. Numer. Anal.**21,** 2001, 2, 489--501
30) Paley-Wiener type theorems by transmutations.(with M. Z. Nashed,),
   J. Fourier Anal. Appl. 7, 2001, no. 4, 395--417.
31) A stochastic inventory model with stock dependent demand (with L. Benkherouf, L. Aggoun)
      J. Appl. Math. Stochastic Anal.14, 2001, no. 4, 317--328.
32) Transmutation of orthogonal polynomials, (with G. Miller),
   Applicable Analysis 78, 2001, no. 3-4, 405--414.
33) Sampling and eigenvalues of non-self-adjoint Sturm-Liouville problems. ,
   SIAM J. Sci. Comput. 23, 2001, no. 1, 219--229
34) Sampling with a string. (with A. Zayed),
   J. Fourier. Anal. Appl. 8, 2002, no.3, 211—231.
35) The sampling problem for the fourth order Sturm-Liouville,
   J. Math. Anal. Appl. 278 (2003), no. 2, 542--550.
36) A diffusion inventory model for deteriorating items 9 (with L. Benkherouf, L. Aggoun)
Applied Mathematics and Computation 138, 2003, 21--39.
37) The impedance tomography problem,
   Proc. Amer. Math. Soc. 131, 2003, no. 11, 3553—3557
38) The rate of convergence for the decomposition method (with M. Gordon).
   Numer.Funct.Anal.Optim.25 2004, no. 1-2, 15--25.
39) The reconstruction of an analytic string from two spectra,
   Inverse Problems 20, 2004, no. 3, 833--846.
40) Existence and construction of the transmutation operator (with Vu Tuan),
   J. Math. Phys. 45, 2004, no. 7, 2833--2843.
41) An inverse spectral problem for the Laplacian.
   Appl. Anal. 84, 2005, no. 3, 221--228.
42) Sampling the Miss distance and transmission function,
   J. Math. Anal.Appl 310, 2005, 197-208.
43) The equivalence of Kramer and Shannon sampling theorems revisited. (with Zayed)
      Sampl.Theory Signal Image Process.**4,** 2005, no. 3, 251--269.
44) The approximation of the transmutation kernel.
   J. Math. Phys.**47,**2006, no. 1,pp13505-13514.
45) The Gelfand-Levitan Theory Revisited, (With Tuan)
J. Fourier Anal. Appl.12 (2006), no. 3, 257--267.
46) Level sets for reaction diffusion equations,
Int. J. Evol. Equ.2 (2007), no. 3, 327--331.
47) On the Blow-up rate by Regular Variation functions,
Differential Integral Equations19 (2006),no. 5, 537--544.
48) Computing Blow-up Solutions,
Int. J. Pure Appl. Math.30 (2006), no. 4, 515--526.
49) The Recovery of Analytic Potentials for Fourth-Order Differential Equations, (with SarahSadhan)
Inverse Problems in Science and Engineering, IV15, 6, (2007), 525 – 558
51) Power series solutions for the KPP equation,
Numer. Algorithms 43 (2006), no. 2, 177--187
52) Interpolation and transmutation,
Z. Anal. Anwend.26 (2007), no. 4, 407--416.

53) The Interpolation of the Titchmarsh-Weyl function, (with Tuan),
J. Math. Anal.Appl.335 (2007), no. 1, 72--78.
54) Sampling in Paley-Wiener and Hardy spaces, (with Tuan),
        Harmonic, wavelet and p-adic analysis, 175--209, World Sci. Publ., Hackensack, NJ, 2007.
55) Sampling Eigenvalues In Hardy Spaces, (with Tuan)
        SIAM J. Numer. Anal.45 (2007), no. 2, 473—483.
56) Frequency modules and nonexistence of quasi-periodic solutions of nonlinear evolution equations
         (with Minh, Nguyen Van and Tuan, Vu Kim)
        Semigroup Forum 76 (2008), no. 1, 58--70.
57) Series solutions for KPP type equations,(with Minh),
        Differential Integral Equations 21 (2008), no. 3-4, 235--246.
58) Perron theorem in the monotone iteration method for traveling waves in delayed
 reaction-diffusion equations. (with Nguyen, Van Minh)
        J. Differential Equations 244 (2008), no. 7, 1551--1570.
59) Blind sampling.
        Sampl.Theory Signal Image Process. 7. (2008), no. 2, 131--140.
60) Transmuation for Strings, (with Tuan)
        Armen. J. Math. 1 (2008), no. 1, 29--43.
61) A trace formula and Schmincke inequality on the half-line.(with Tuan)
    Proc. Amer. Math. Soc. 137 (2009), 3, 1039—1049
62) The recovery of even polynomial potentials.
    Appl. Math. Comput. 215 (2009), no. 8, 2914–2926.
63) Inverse problems for multidimensional heat equations by measurements at a single
    point on the boundary.
     Numer. Funct. Anal. Optim. 30 (2009), no. 11-12, 1215–1230,(with Tuan)
64) A finite inverse problem by the determinant method.
     Oper. Matrices 3 (2009), no. 4, 547–556.
65) The determinant method for nonselfadjoint singular Sturm-Liouville problems.
    Comput. Methods Appl. Math. 9 (2009), no. 2, 113–122.
66) Representation and sampling of Hardy functions. (with Tuan)
    Math. Methods Appl. Sci. 33 (2010),no. 4, 485–492,
67) Recovery of a heat equation by four measurements at one end. (with Tuan)
    Numer. Funct. Anal. Optim. 31 (2010), no. 1-3, 155–163,
68) An inverse problem for the heat equation (with Tuan)
     Proc. Amer. Math. Soc. 138 (2010), no. 11, 3911–3921.
69) The Gelfand-Levitan theory for strings.
    Topics in operator theory. Volume 2. Systems and mathematical physics, 115–136,
    Oper. Theory Adv. Appl., 203, BirkhäuserVerlag, Basel, 2010.
70) Reconstruction of the Refraction Index in Stratified Ocean (with Fadhel Al-Musallam)
    SIAM J. Appl. Math. 71, (2011), 972-982
71) An inverse problem for the wave equation, (with Tuan)
    Journal of Inverse and ill-posed problems, 19, (2011), 4-5,573-592
72) Recovery of the heat coefficient by two measurements, (with Tuan)
    Inverse Problems and Imaging , 5, No. 4, (2011), 775-791
73) Identification and control of a heat equation, (with F. Almusallam),
    International journal of evolution equations, 6, 3 (2013), 85-100
74) An inverse problem for a parabolic convolution equation,
    Funkcialaj Ekvacioj, 55, (2012)-447-456
75) Blow up of series solutions. J. Appl. Math. Comput. 42 (2013), no. 1-2, 469–478.
76) The approximation of eigencurves by sampling (with AlAzemi, A; AlAzemi, F;).
     Sampl. Theory Signal Image Process. 12 (2013), no. 2-3, 127–137.
77) The recovery of the acoustic stiffness coefficient.(with F. Almusallam)
    Math. Methods Appl. Sci. 37 (2014), no. 11, 1610–1623.

78) Identification of a wave equation generated by a string.
    ESAIM Control Optim. Calc. Var. 20 (2014), no. 4, 1203–1213

79) Blow up of series solutions on the half line.
    Advances in applied mathematics, 231–238, Springer Proc. Math. Stat., 87, Springer ,(2014).

80) Recovery of a parabolic equation generated by a Krein string. (with F. Al-Musallam)
    J. Math. Anal. Appl. 420 (2014), no. 2, 1408–1415.

81) Detection of multilayered media in the acoustic waveguide. (with Al-Musallam, and M. Sini,)
    J. Math. Anal. Appl. 415 (2014), no. 2, 846–872.

82) Recovery of Holomorphic Functions and Taylor Coefficients from Discrete Samples (with Tuan)
    Current Trends in Analysis and Its Applications Springer, (2015) 531-543

83) The reconstruction of a source and a potential from boundary measurements (with Al-Musallam)
        J. Math. Anal. Appl . 435 (2016), no. 1, 800–808.

84) An inverse problem in magneto-hydrodynamics
A panorama of mathematics: pure and applied, 1–7, Contemp. Math., 658,
    Amer. Math. Soc., Providence, RI, 2016.

85) A solvability condition for a Tokamak problem
Journal of Spectral Theory, 7 (2017), no. 1, 227–233

86) The reconstruction of a parabolic system
Math. Methods Appl. Sci. 40 (2017), no. 16, 5881–5892

87) Recovery of the heat equation from a single measurement (with Tuan)
Appl. Anal. 97 (2018), no. 10, 1667–1676.

88) One point recovery of a parabolic equation (with Tuan)
. *J. Math. Anal. Appl.* 463 (2018), no. 1, 161–166.

89) The recovery of a parabolic equation from measurements at a single point, (with Tuan, and Hoang)
Evolution Equations and Control Theory, 2018, 7(2) 197-216

90) Reconstruction of the coefficients of a star graph from observations of its vertices (with Tuan)
Inverse Problems and Imaging , 12 (2018), no. 6, 1293–1308.

91) Real Variable Inverse Laplace Transform, (with Tuan, and Thanh Duc)
Rogosin, S., Çelebi, A. (eds) Analysis as a Life.
Trends in Mathematics. Birkhäuser, Cham.(2019), 303-318.

92) A fractional inverse initial value problem, (with Tuan,)
Advances in mathematical methods and high performance computing, 387–402,
Adv. Mech. Math., 41, Springer, Cham, 2019.

93) Determining the shape of a solid of revolution
Mathematical Control and Related Fields, 9 (2019), no. 3, 509–515.

94) Reconstructions from boundary measurements.
Trends in control and inverse problems, 63–74,
Am. Inst. Math. Sci. (AIMS), Springfield, MO, 2018.

95) The reconstruction of an equation of visco-elasticity.
Nonauton. Dyn. Syst. 5 (2018), no. 1, 152–154.

96) Tuan, Vu Kim; Boumenir, A.; Duc, Dinh Thanh
Real variable inverse Laplace transform. Analysis as a life, 303–318,
Trends Math., Birkhäuser/Springer, Cham, 2019.

97) Series solutions of a semilinear wave equation.
Math. Methods Appl. Sci. 42 (2019), no. 15, 5052–5059.

98) Baskaya, E.; Boumenir, A.
Sampling and the eigenvalues of a quadratic pencil.
 Sampl. Theory Signal Image Process. 18 (2019), 9–22

99) Boumenir, Amin; Ghattassi, Mohamed; Laleg-Kirati, Taous Meriem
 Monitoring the temperature of a direct contact membrane distillation.
Math. Methods Appl. Sci. 43 (2020), no. 3, 1399–1408.

100) Boumenir, Amin; Tuan, Vu Kim
The reconstruction of a wave equation from one side measurement.
Wave Motion 95 (2020), 102547, 5 pp.

101) A. Boumenir, Amin; V.K. Tuan
Reconstructing the shape of a domain from one point measurements.
J. Math. Anal. Appl. 491 (2020), no. 1, 124262, 7pp.

102) H. Al Attas, and A. Boumenir,
Sampling eigenvalues by Hermite revisited.
Int. J. Comput. Math. 97 (2020), no. 7, 1380–1390.

103) Boumenir, Amin; Tuan, Vu Kim;
Transmutation operators and their applications. Transmutation operators and applications, 11–47,
Trends Math., Birkhäuser/Springer, Cham, [2020],

104)W. Al-Khulaifi, and A. Boumenir
Reconstructing the Moore-Gibson-Thompson equation.
Nonauton. Dyn. Syst. 7 (2020), no. 1, 219–223.

105) A. Boumenir, V.K. Tuan, and W. Al-Khulaifi,
Reconstructing a fractional integro-differential equation.
Math. Methods Appl. Sci. 44 (2021), no. 4, 3159–3166.

106) E. Başkaya, and A. Boumenir,
Recovery of a quadratic analytic pencil.
Inverse Probl. Sci. Eng. 29 , 6, (2021), 882–902.

107) A. Boumenir, and V.K. Tuan,
Reconstruction of the wave speed and the source
Math. Methods Appl. Sci. 44, 18, (2021), 14470-14480.

108) Al Attas, H. and Boumenir, A.
Recovery of a degenerate space-dependent heat capacity.
Inverse Probl. Sci. Eng. 29, No. 13, (2021), 3214-3226.

109) Audu, J. D.; Boumenir, A.; Furati, K. M.; Sarumi, I. O.
Identifying the heat sink.
Discrete Contin. Dyn. Syst., Ser. S 15, No. 5, (2022), 1045-1059.

110) Al Attas, H. and Boumenir, A.
Reconstruction of a heat equation from one point observations.
Commun. Appl. Math. Comput. 4, No. 4, (2022), 1280-1292.

111)E. Baskaya, and A. Boumenir,
Sampling the eigenvalues of a graph.
Sampl. Theory Signal Process. Data Anal. 21, No. 1, Paper No. 13, 12 p. (2023).

112) A. Boumenir
The reconstruction of the space-dependent thermal conductivity coefficient
Numer. Algor. (2023), Accepted

Book Chapter:

- Boumenir, Amin;
  The Gelfand-Levitan Theory,
  Encyclopedia in Nonlinear Science, Alwyn Scott editor, Routledge, (2005) pp356-359

- Boumenir, Amin;
  Reconstructions from boundary measurements.
  Trends in control and inverse problems, 63–74,
  Am. Inst. Math. Sci. (AIMS), Springfield, MO, 2018.

- Boumenir, Amin; Tuan, Vu Kim;
  Transmutation operators and their applications. Transmutation operators and applications,
  11–47, Trends Math., Birkhäuser/Springer, Cham, [2020],

Conference Proceeding: SampTa 2001, IEEE
International conference on Sampling theory and applications, May13-17 Orlando, FL**,**
Paper: Irregular sampling and singular Sturm-Liouville problems, p309-311.

Presentations: (* invited, ** meeting by invitation only)

2-5 July 1987: 3rd International Symposium On Dynamical Systems Gregynog (Wales)
Talk**: Comparison of Self-Adjoint Operators

4-7 Jan 92: A.M.S Annual Meeting; Baltimore, MD.
Special Session on Harmonic Analysis.
Talk*: Generalization of Paley-Wiener Theorems.

10-17 July 96: I.F.N.A. Athens, Greece
Session on Reaction Diffusion:
Talk: Extension of solutions beyond Blow-up

Session on Inverse Problems:
Talk: Inverse Spectral Problem for the Bessel type operators.

14-19 July 96: Gregynog Wales, U.K.
Workshop on differential equations
Talk**: Computing the spectral function.

11-16 July 99: Gregynog Wales, U.K
Workshop on computational and analytical problems in spectral theory.
Talk**: The Sampling Method.

10-12 November, 2000: A.M.S. meeting, Birmingham AL. (see Abstracts.)
Special Session on Sampling, Wavelets, II
Talk*: Computing Eigenvalues in the presence of continuous spectrum.

10-12 November, 2000: A.M.S. meeting, Birmingham AL. (see Abstracts.)
Special Session on Sampling, Wavelets, III
Talk*: Sampling on the String (Presented by Zayed)

10-12 November, 2000: A.M.S. meeting, Birmingham AL. (see Abstracts.)
Special Session on Inverse problems:
Talk*: Recovery of analytic potentials.

3-4 January 2001, AMS annual meeting, New Orleans,
Special session on Inverse Problems
Talk*: Recovery of a potential for a 4th order S.L. problem

16-20 May, 2001 SampTA 2001, an International Conference Sampling Theory &Appl, Orlando,
Talk*: Irregular Sampling and Singular SL problems.

4-6 March 2002, First SIAM Conference on Imaging Science (SIAG/IS) (IS02), Boston,
Talk: The reconstruction of an analytic potential.

8–10 March, 2002, AMS, sectional meeting Atlanta, Georgia,
Talk: Sampling eigenvalues in the nonself-adjoint case (975-42-149)

26-30 March 2002,University of Alabama at Birmingham, AL
UAB-GaTech International Conference on Differential Equations and Mathematical Physics,
Talk: Irregular sampling and Inverse spectral problem,
26-30 March 2002,University of Alabama at Birmingham, AL
Chair of a special session on Inverse problems

11th September, 2002, Applied Mathematics Seminars at S.U.W.G
Talk: On the rank of computed eigenvalues
15-18, January 2003, AMS Annual meeting, Baltimore,
Special Session on Sampling and Inverse Problems (983-34-208)
Talk*: Sampling Eigenvalues of Fourth order Sturm-Liouville problems

4th February 2003, Applied Mathematics Seminars at U.W.G
Talk: The Gelfand-Levitan Theory.

1st April 2003, Georgia Tech, Atlanta
Math Analysis seminar, Prof. Geronimo
Talk*: The Sampling Method.

May 18 2003; UCLA-IPAM conference
Applied Inverse problems
Talk**: The recovery of analytical potentials

10th November 2003, Mathematics Colloquium at University of Tennessee at Chattanooga,TN
Talk*: The inverse spectral problem

9th January 2004, AMS Annual meeting, Phoenix, AZ
Special session on classical and nonlinear special functions, I (993-41-1003)
Talk*: A note on the equivalence of Kramer's and Shannon sampling Theorems

(Joint work presented by A. Zayed, DepaulUniversity)

17th October 2004, AMS meeting, Nashville, TN
Special session on Inverse problems III,
Talk*: The representation of the Neumann to Dirichlet map.

7th January 2005, AMS Annual meeting, Atlanta, GA
AMS session on Calculus of variation and Operator Theory, II
Talk: The impedance tomography problem

29 March 2005,UAB-University of Alabama at Birmingham, AL
International Conference on Differential Equations and Mathematical Physics,
Talk: The determinant method for periodic Sturm Liouville problem,

12 September 2005, UWG applied Math seminars
Talk: The inverse Laplace transform and pseudo-differential operators

21-26 May 2006, Applied Institute of Mathematics, (Stanford University) San Francisco,
Workshop on Low Eigenvalues of the Laplacian,

8 November 2006, Graduate seminar at Univ. of Missouri at Kansas City,
Talk: Sampling eigenvalues of non self-adjoint operators.

19 June 2007, Institut Elie Cartan, Nancy, France
Talk*: Power series solutions of KPP.

3 November 2007, 7th UAB-Mississipi conference
Talk: Computing Blow-up solutions

22 July 2008, IWOTA 2008, William&Mary college, VA
Talk*: Computing eigenvalues of singular SL by the determinant.

14-16 Nov 2011, JIP'11 Annaba, Algeria
Talk*: Recovery of the heat coefficient by two measurements

20-24 may 2013 Discrete encounters, Budapest,
Talk*: Identification and control of a heat equation

21-29 May 2014, CBMS lectures on scattering, UTA
University of Texas Arlington.

14-17 Nov 2014, Mathematics and Its Applications, Kuwait
Talk*: Recent Results in Boundary Inversion Problems

7-12 June Applied Institute of Mathematics, (Fry Electronics-NSF), San Francisco,
Workshop on Non-Self-adjoint operators
Inverse Problems with Non Self-adjoint operators.

Talk: Inverse problem for the heat equation, (25min)
ICOME 2017, Istanbul, May 10-12
http://www.icome2017.com

Invited speaker
The reconstruction of a source and a potential
Control and Optimization 2017, 15-19 May 2017
University of Monastir, Tunisia
http://www.lama.univ-savoie.fr/ContrOpt2017/Speakers.php

Invited speaker   FAOTSA23 workshop
Direct reconstructions in Inverse Problems.
Functional Analysis and Operator Theory South Africa, 2nd-7Th July23
University of The Witwatersrand, Johannesburgh

EDITORSHIP
Guest editor for: AJSE (1992) Theme Issue: Boundary Value Problems,
            IJMMS (2011) Theme Issue: Spectral Theory of Differential equations
            International Journal of Mathematics and Math. Sciences
Kuwait Journal of Science (2014)

Referee for international Journals (2001-2006):
International Journal Mathematics and Mathematical Sciences , Arab Math Journal, Arab Journal Science and
Engineering , Optimization and Numerical Functional Analysis, Journal of Mathematical Analysis and Applications ,
Journal of Computation and Applied Math, S.I.A.M on Numerical Analysis (SINUM), Mathematics of Computation
(AMS), IMA in Numerical Analysis, Inverse problems, numerical methods, Applicable Analysis,
International Journal in Sampling and Application, Linear Algebra &Applications, New-Zealand Journal.

Reviewer: in the areas of Differential equations and Numerical Analysis
Mathematical Reviews, AMS, 2002-2016.
Zentralblatt, EMIS, 2002-present.