Curriculum Vitae

1. Personal

Date of Birth	August 23rd, 1966
Place of Birth	Athens, Greece
Nationality	Greek
Marital Status	Wed to Heloisa Nunes Bordallo, 12/12/1998
Languages	Fluent in Greek and English, medium level German
Personal Address	Wassergasse 5, Berlin, 10179, Germany
Email	argyriou @ esss.se

2. Education

2009	*Habilitation* with the Rheinisch-Westfälische Technische Hochschule, Aachen, Fakultät für Georessourcen und Materialtechnik. Venia Legendi: *Kristallphysik.*
1994	*Doctor of Philosophy* (Physics), University of Technology, Sydney. Title of thesis "Neutron Scattering from Zirconia and Zirconia Ceramics."
1990	*Bachelor of Applied Science* (Honors, Physics). University of Technology, Sydney.

3. Employment History

1/2011-Present	Director of Science, European Spallation Source AB, P.O Box 117, SE-221 00 Lund, Sweden.
1/2002-12/2010	Group leader, “Novel Materials”, Department of Magnetism, SF-2, Helmholtz-Zentrum Berlin für Materialen und Energie, Berlin 14109, Germany.
4/99-12/2002	Assistant Physicist , Materials Science Division, Argonne National Laboratory, 9700 S. Cass, Argonne, IL 60639, USA.

9/96-4/99	Technical Staff Member (Instrument Scientist) Los Alamos Neutron Science Center, Los Alamos National Laboratory, Los Alamos, NM, 87545, USA.
6/94-8/96	Postdoctoral Scientist, Materials Science Division and Science and Technology Center for Superconductivity, Argonne National Laboratory, 9700 S. Cass, Argonne, IL 60639, USA.
2/89-5/94	Experimental Officer, Neutron Scattering Group, and Advanced Materials Division, Australian Nuclear Science and Technology Organization. New Illawara Rd, Menai NSW 2234, Australia.

4. Awards

2010	Friedrich-Wilhelm-Preis, presented by the Rheinisch-Westfälische Technische Hochschule, Aachen for work on multiferroic oxides.
2008	Elected Fellow of the American Physical Society (DCMP) for "*For important applications of neutron and x-ray scattering which reveal the relationships between crystal and magnetic structure and physical properties in perovskite-based CMR.*"
1997	Visiting Scientist, Institut Laue -Langevin.
1990	State of New South Wales, Ph.D. Scholarship.

5. Professional Skills

- Neutron Scattering
  - Neutron diffraction.
  - Inelastic neutron scattering.
  - Neutron instrument design.
- X-ray scattering
  - High energy X-ray diffraction, powder and single crystal.
  - Magnetic resonant X-ray scattering.
- Materials Synthesis and Characterization

Powder methods for the synthesis of oxides.
Floating zone single crystal growth.
Materials characterization, SQUID, XRD etc.

6. Memberships

German Neutron Scattering Society
American Physical Society (Fellow)
German Physical Society (DPG)

7. Professional Activities

2010-	Chairman of the Science Advisory panel of the European Spallation Source.
2009-	Member of the beam time proposal review panel (structure) for the Spallation Neutron Source located at the Oak Ridge National Laboratory, USA.
2008-present	Member of the beam time proposal review panel (structure) for the Forschungsneutronenquelle Heinz Maier-Leibnitz (FMR-II).
2007-present	Member of the Science Advisory panel of the European Spallation Source.
2001-present	Principal organizer together with Michael Rübhausen of a series of annual workshop on Orbital Physics and novel phenomena in transition metal oxides. These highly successful workshops attract researchers from Europe, Japan and the US. In 2007 “Orbital” was organized with the Max Plank Institut for Solid State Physics and was attended by 130 participants. It was highlighted in Nature Materials (Volume 6, pages 927 - 928 (2007)).
2004	Instrument design panel for the WISH spectrometer to be constructed at the ISIS facility.

2002-present	Reviewer for beam time proposals for the NIST center for neutron research, NIST.
2000	Principal organizer of international workshop on Magnetism at the next generation Spalation Neutron Source, Argonne National Laboratory.
1997-1998	Selection panel for experimental proposals for the LANSCE facility, Los Alamos national Laboratory.
1997	Selection panel for Laboratory Directed Research Development proposals, Los Alamos National Laboratory.
1996-present	Regular referee for Physical Review Letters, Nature, Nature Materials, Nature Physics, Physical Review B, Journal of Physics, Journal of Magnetism and Magnetic Materials.

8.Competitive funding

2010	Awarded by the German Science Foundation (DFG) €100K Euro over 3 years to fund 1 Ph.D. students on a project titled “Evolution of magnetism with doping and pressure in superconducting iron pnictides”.
2009	Awarded collaborative funding from the Deutscher Akademischer Austausch Dienst for the project titled “Is there a pseudogap phase in overdoped manganites ?” in partnership with the Institute of Materials Science, National Research Center Demokritos, Greece.
2007	Awarded by HMI/BMBF €950K for the upgrade of the E9 high resolution powder diffractometer.
2006	Awarded by the HMI via internal competition €400K, for the purchase of a 2nd floating zone image furnace and high temperature furnaces to expand oxide synthesis laboratory.

2006	Awarded by the German Science Foundation (DFG) €100K Euro/ year to fund 2 Ph.D. students on a project titled "Competing interactions in highly frustrated multiferroic manganites". This project was co-authored with Michael Rübhausen University of Hamburg.
2002	Co-authored scientific case for a 40T steady state Neutron High Field Laboratory at HMI. This proposal was submitted to the Bundesministerium für Bildung und Forschung (BMBF) and awarded funding of €22 Million.
2001	Awarded by the HMI via internal competition €450K, for the purchase of a floating zone image furnace and high temperature furnaces to establish an oxide synthesis laboratory. Received additional funding for two postdoctoral positions.
2000	Co-authored a successful proposal for a new DOE initiative on "Laterally confined nanomagnets" ($1.2M).
1998-1999	Made significant contributions to the scientific case and provided preliminary neutron instrumentation designs for the proposal to construct a Long-Wavelength Target Station at SNS .
1998	Awarded funding for research on CMR materials, Los Alamos National Laboratory, ($250K).
1997	Awarded funding for the construction of a 12T superconducting magnet, Los Alamos National Laboratory, ($320K).

9. Impact of Research

- Co-authored well over 140 publications in international peer-reviewed journals.
- Co-authored papers that are published in journals with high impact factors, such as Physical Review Letters, Science and Nature.
- Citations exceed 3900 (by November 2010), Index h~32.
- Presented over 30 invited seminars in international meetings and workshops.

- Invitations to contribute to books and special issue journal editions.
- Invitations to organize sessions and symposia in international conferences such as the microsymposium on multiferroics at the congress of the International Union of Crystallography, Florence 2006 and more recently two symposia on multiferroics and iron arsenide superconductors at the Deutsche Neutronenstreutagung 2008 in Munich.

10. Selected Publications

1. Cycloidal Order of 4f Moments as a Probe of Chiral Domains in DyMnO3

   E. Schierle, V. Soltwisch, D. Schmitz, R. Feyerherm, A. Maljuk, F. Yokaichiya, **D. N. Argyriou**, and E. Weschke1. *Phys. Rev. Lett*. (2010) vol. 105, pp. 167207.

2. From (π,0) magnetic order to superconductivity with (π,π) magnetic resonance in Fe1.02Te1−xSex

   T. J. Liu, J. Hu, B. Qian, D. Fobes, Z. Q. Mao, W. Bao, M. Reehuis, S. A. J. Kimber, K. Prokeš, S. Matas, **D. N. Argyriou**, A. Hiess, A. Rotaru, H. Pham, L. Spinu, Y. Qiu, V. Thampy, A. T. Savici, J. A. Rodriguez & C. Broholm. *Nature Materials* (2010) vol. 9, pp. 716-720.

3. Direct NMR evidence of phase solitons in the spin ground state of overdoped manganites

   D. Koumoulis, N. Panopoulos, A. Reyes, M. Fardis, M. Pissas, A. Douvalis, T. Bakas, **D. N. Argyriou**, and G. Papavassiliou. *Phys. Rev. Lett.* (2010) vol. 104, pp. 077204.

4. Signature of checkerboard fluctuations in the phonon spectra of a possible polaronic metal $La_{1.2}Sr_{1.8}Mn_2O_7$

   F. Weber, N. Aliouane, H. Zheng, J. F. Mitchell, **D. N. Argyriou** & D. Reznik. *Nature Materials* (2009) vol. 8, pp. 798 - 802.

5. Similarities between structural distortions under pressure and chemical doping in superconducting $BaFe_2As_2$

   S.A.J. Kimber, A. Kreyssig, Y Zhang, H. Jeschke, R. Valenti, F. Yokaichiya, E. Colombier, J. Yan, T. Hansen, T. Chatterji, R. McQueeney, P. Canfield, A.I. Goldman, **D.N. Argyriou**. *Nature Materials* (2009) vol. 8, pp. 471–475.

6. Flop of Electric Polarization Driven by the Flop of the Mn Spin Cycloid in Multiferroic $TbMnO_3$

   N. Aliouane, K. Schmalzl, D. Senff, A. Maljuk, K. Prokes, M. Braden, **D.N. Argyriou**. *Phys. Rev. Lett.* (2009) vol. 102 pp. 207205.

7. Metal-Insulator Transition and Orbital Order in PbRuO3

   S. A. J. Kimber, J. A. Rodgers, H. Wu, Claire A. Murray, **D. N. Argyriou**, A. N. Fitch, D. I. Khomskii, and J. P. Attfield. *Phys. Rev. Lett..* (2009) vol. 102 pp. 046409

8. Coupling of frustrated ising spins to the magnetic cycloid in multiferroic $TbMnO_3$.

   O Prokhnenko, R Feyerherm, M Mostovoy, N Aliouane, E Dudzik, A U B Wolter, A Maljuk, **D. N. Argyriou**. *Phys. Rev. Lett.* (2007) vol. 99 pp. 177206

9. Enhanced ferroelectric polarization by induced Dy spin order in multiferroic $DyMnO_3$.

   O Prokhnenko, R Feyerherm, E Dudzik, S Landsgesell, N Aliouane, L. C Chapon, **D. N. Argyriou**, *Phys. Rev. Lett.* (2007) vol. 98 pp. 057206

10. Magnetic excitations in multiferroic $TbMnO_3$: Evidence for a hybridized soft mode.

    D Senff, P Link, K Hradil, A Hiess, L. P Regnault, Y Sidis, N Aliouane, **D. N. Argyriou**, M Braden, *Phys. Rev. Lett.*(2007) vol. 98 pp. 137296

11. Quasiparticlelike peaks, kinks, and electron-phonon coupling at the (pi, 0) regions in the CMR oxide $La_{2-2x}Sr_{1+2x}Mn_2O_7$.

    Z Sun, Y. -D Chuang, A. V Fedorov, J. F Douglas, D Reznik, F Weber, N Aliouane, **D. N. Argyriou**, H Zheng, J. F Mitchell, T Kimura, Y Tokura, A Revcolevschi, D. S Dessau. *Phys. Rev. Lett.* (2006) vol. 97 pp. 056401

12. Revised superconducting phase diagram of hole-doped $Na_x(H_3O)_zCoO_2.yH_2O$.

    CJ Milne, **D. N. Argyriou**, A Chemseddine, N Aliouane, J Veira, S Landsgesell, D Alber. *Phys. Rev. Lett.* (2004) vol. 93 pp. 247007

13. Antiferromagnetic order as the competing ground state in electron-doped $Nd_{1.85}Ce_{0.15}CuO_4$.

    HJ Kang, PC Dai, JW Lynn, M Matsuura, JR Thompson, SC Zhang, **D. N. Argyriou**, Y Onose, Y Tokura *Nature* (2003) vol. 423 pp. 522-525

14. Glass transition in the polaron dynamics of colossal magnetoresistive manganites.

D. N. Argyriou, JW Lynn, R Osborn, B Campbell, JF Mitchell, U Ruett, HN Bordallo, A Wildes, CD Ling. *Phys. Rev. Lett.* (2002) vol. 89 pp. 036401

15. Neutron scattering investigation of magnetic bilayer correlations in $La_{1.2}Sr_{1.8}Mn_2O_7$: Evidence of canting above T_C.

    R Osborn, S Rosenkranz, **D. N. Argyriou**, L Vasiliu-Doloc, JW Lynn, SK Sinha, JF Mitchell, KE Gray, SD Bader. *Phys. Rev. Lett.* (1998) vol. 81 pp. 3964

16. Sign reversal of the Mn-O bond compressibility in $La_{1.2}Sr_{1.8}Mn_2O_7$ below T_C: Exchange striction in the ferromagnetic state.

    D. N. Argyriou, JF Mitchell, JB Goodenough, O Chmaissem, S Short, JD Jorgensen. *Phys. Rev. Lett.* (1997) vol. 78 pp. 1568

17. Compressibility, phase transitions, and oxygen migration in zirconium tungstate, ZrW_2O_8.

    JSO Evans, Z Hu, JD Jorgensen, **D. N. Argyriou**, S Short, AW Sleight. *Science* (1997) vol. 275 pp. 61-65

18. Lattice effects and magnetic order in the canted ferromagnetic insulator $La_{0.875}Sr_{0.125}MnO_{3+delta}$.

    D. N. Argyriou, JF Mitchell, CD Potter, DG Hinks, JD Jorgensen, SD Bader.
    Phys Rev Lett (1996) vol. 76 pp. 3826

11. Books or Book Chapters

1. "*Structural Response to Orbital, Spin, and Charge Ordering*", J.F. Mitchell, D. N. Argyriou and J.D. Jorgensen, in "Colossal Magnetoresistive Oxides", Advances in Condensed Matter Science, Vol. 2 (2000), Gordon and Breach Science Publishers. Edited by Y. Tokura.
2. "*Crystal and Magnetic Structure from Hole to Electron Doped Manganites*", D. Argyriou and C.D. Ling, in "Colossal Magnetoresistive Manganites", Kluwer Academic Press (2004), edited by Tapan Chatterji.

12. Opinion-Editorials

James D. Jorgensen (1948-2006): Pioneer of neutron diffraction and the structure of superconductors.
DN Argyriou and PG Radaelli, *Nature Materials* (2007) vol. 6 pp. 97.

Decisions on the european spallation source.
DN Argyriou and HN Bordallo, *Nature Materials* (2009), vol. 8, pp 440.

Towards Colossal Magnetoelectricity ?
DN. Argyriou, APS Magazine Physics (in press).

13. Selected invited talks at international conferences and workshops

Major International Conferences

1. Function from frustration in modern multiferroics.
   International Union of Crystallography 21th Congress and General Assembly Osaka, August 2008.
2. Complex Multiferroics.
   European Crystallographic Society, Leuven Belgium, August 2006.
3. Structure and Superconductivity in $Na_x(H_3O)_yCoO_2.zH_2O$.
   German Neutron Scattering Meeting, Dresden, Germany, September 2004.
4. The Glass Transition in the Polaron Dynamics of Manganites.
   American Physical Society March Meeting, Austin, Texas, March 2003.
5. Polaron Dynamics in CMR Manganites.
   International Union of Crystallography 19th Congress and General Assembly Geneva, August 2002.
6. Phase separation from competing orbital and magnetic degrees of freedom.
   American Physical Society March Meeting, Seattle, Washington, March 2001.

International Workshops and Meetings

1. Structural transitions associated with pressure induced superconductivity in MFe_2As_2, M=Ba,Ca.
   International Workshop on “Physics and Chemistry of FeAs-based Superconductors”, IFW Dresden, Germany, October 2008.
2. Structure and Dynamics in modern ferroelectrics.
   International Workshop on “Moments and Multiplets in Mott Materials”, University of California, Santa Barbara, August 13 - December 14, 2007.
3. Coupled Structural and Magnetic Transitions in layered FeAs systems.
   International Workshop on “Experimental and Theoretical Magnetism”, Abington, United Kingdom, July 2008.
4. Emergent Multiferroics.
   International Workshop on “Self Organized Strongly Correlated Electron Systems”, Seilac, France, May 2006.

5. Structure and Magnetism in Frustrated Manganites.
International Workshop on “Experimental and Theoretical Magnetism”, Abington, United Kingdom, July 2006.

6. Polarons in Manganites.
International Workshop on the Jahn-Teller Effect, International Institute of Theoretical Physics, Trieste, Italy, August 2006.

7. The Glass transition in the polaron dynamics of manganites.
International Workshop on Nanoscale Fluctuations in Magnetic and Superconducting Systems. Dresden, April 2005.

8. Electronic and Structural Phase diagram of superconducting $Na_x(H_3O)yCoO_2.zH_2O$.
International Workshop on “Magnetoresistive Oxides”, Telluride, Colorado, July 2004.

9. Static and Dynamic Charge and Spin Correlations in Layered Manganites.
Workshop on “Single Crystal Diffuse Scattering at Pulsed Neutron Sources”, Argonne National Laboratory Argonne, USA, June 2003.

10. Structure and Dynamics of Lattice Polarons in Manganites.
International Workshop on “Self Organized Strongly Correlated Electron Systems”, Santorini, Greece, August 2003.

11. Polaron Dynamics in CMR Manganites.
3nd International “Workshop on Magnetoresistive Oxides”, Telluride, Colorado, July, 2000.

12. Charge Ordering in the Layered Manganites.
International Conference on “High Temperature Superconductors and Transition Metal Oxides”. Sendai, Japan, December 2001.

14. Postdoctoral and student training

2008-present	Niels Vestergaard (Ph.D. student, Uni. Copenhagen), joined student with the University of Copenhagen working on complex magnetic oxides.
2007-present	Simon Kimber (postdoc, HBZ) working in my group on synthesis of novel oxides and co-responsible for the E9 high resolution powder diffractometer.

2007-present	Fabiano Yoikachiya, (postdoc, HBZ) working in my group on multiferroic oxides. Co-responsible on the E9 high resolution powder diffractometer.
2005-present	Andrei Maljuk (postdoc, HBZ) working in my group on crystal growth of novel oxides.
2004-2008	Oleksandr Prokhenko (postdoc, HBZ) is currently the instrument scientist for the EXED diffractometer at BENSC.
2003-2006	Jan Veira (Ph.D. student, HBZ), worked in my group in the synthesis and characterization of Na_xCoO_2 , Na_xCoO_2,yH_2O and completed his Diplom Arbeit in my group in the interplay between magnetism and ferroelectricity in $BaMnF_4$. Currently working for McKinsey consulting.
2003-present	Sven Landsgesell (Ph.D. student, HBZ), worked in my lab as a summer student, completed his Diploma Arbeit and is currently member of my group undertaking a Ph.D. in novel multiferroics.
2003-2008	Nadir Aliouane (postdoct, HBZ), currently appointed as Marie Curie Fellow, IFW Institute Norway.
2002-2005	Christopher Milne (postdoct, HBZ). Currently working in the private sector in Scotland.
2001-2002	Laurent Chapon (postdoc, ANL and HBZ). Currently appointed as instrument scientist at ISIS.
2001-2005	Daniel Tobens (staff member, HBZ). Currently working for the pharmaceutical industry in Austria.
1999-2001	Jamie Manson (postdoc, ANL). Currently appointed as Associated Professor at the University of Washington.

1999-2001	Chris Ling (postdoc, ANL). Previously ILL instrument scientist and currently appointed as Senior Lecturer at the University of Sydney, Australia.
1997-1998	Jason Gardner (postdoc, LANL). Currently jointly appointed at the NIST Center for Neutron Research and Brookhaven National Laboratory.

15. Teaching Experience

Institution	Semester	Subject	Hours/week and duration
University of Technology, Sydney	Autumn, 1992	Laboratory for "Physics for engineers"	2 hours for 12 weeks
University of Technology, Sydney	Spring, 1993	Laboratory for "Physics for engineers"	2 hours for 12 weeks
University of Technology, Sydney	Autumn, 1993	Laboratory for "Physics for engineers"	2 hours for 12 weeks
University of Technology, Sydney	Autumn, 1993	Laboratory for "Physics and medicine"	2 hours for 12 weeks
University of Technology, Sydney	Spring, 1994	Laboratory for "Physics for engineers"	2 hours for 12 weeks
University of Technology, Sydney	Spring, 1994	Laboratory for "Physics and medicine"	2 hours for 12 weeks
Argonne National Laboratory, Neutron School	Autumn, 1998	Neutron Powder Diffraction	4 hours, 1 week
Argonne National Laboratory, Neutron School	Autumn, 1999	Neutron Powder Diffraction	4 hours, 1 week

Institution	Semester	Subject	Hours/week and duration
Institute Laue Langevin, HERCULES	Spring, 2007	Magnetic neutron scattering from complex oxides	4 hours, 1 week
Rheinisch-Westfälische Technische Hochschule, Aachen	January, 2008	Diffraction principles and application to complex materials	6 hours, 1 week

16. Key Collaborations

Prof. Bernhard Keimer Max Plank Institute, Stuttgart	Synthesis of novel oxides and neutron measurements of Na_xCoO_2
Prof. Alois Loidl University of Augburg	Crystal growth of novel oxides. Infra-red and electric polarization measurements in multiferroics
Prof. Markus Braden University of Cologne	Spin excitations in multiferroics
Prof. Lance Cooper University of Illinois at Urbana Champagne, USA.	Raman scattering at high magnetic fields in multiferroics
Prof. Michael Rübhausen University of Hamburg	Raman scattering and ellipsometry in multiferroics
Prof. Manfred Fiebig University of Bonn	Second harmonic generation light scattering in multiferroics
Prof. Maxim Mostovoy University of Groningen, The Netherlands	Theory of multiferroics
Prof. T. Kimura University of Osaka, Japan	Multiferroic oxides
Prof. Bernd Büchner IFW Dresden	Iron arsenide superconductors

Prof. Alan Goldman and Prof. Paul Canfield Ames National Laboratory, USA	Iron arsenide superconductors
Prof. Paul Attfield University of Edinburough, United Kingdom	Iron arsenide superconductors and complex oxides