Curriculum Vitae

Layla Sorkatti

1. PROFESSIONAL AFFILIATION AND CONTACT INFORMATION

Assistant Professor, Department of Pure Mathematics,

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2. Qualifications

Jun. 2007:   MSc, First class B.Sc. (Honors), University of Khartoum, Sudan.

Mar. 2015:   Ph.D in Pure Math, University of Bath, England.

3. Work Experience

- Assistant Professor, Linköping University, Sweden for 4 months, 2 years.
- fellowship ICTP, Trieste and Dip of Math. Tor Vergata, Roma, Italy, 2018.
- Math Olmpiyad team at University of Rwanda, Rwanda, 2018 -present.
- Research visitor/Teaching at University of Darelsalaam, Tanzania.
- Research visitor/Teaching at Eduardo Mondlane University, Maputo.
- Assistant Professor (part-time) in Faculty of Mathematical and Statistical Sciences, Al-Neelain University, Khartoum, Sudan, Oct 2017-present.
- Reqular visitor research visitor/Teaching at University of Makarere, Uganda, 2017-2020.
- Post-doc fellow at University of bath, UK, 2015.
- Tutor of Algebra 2B, Representation theory, Galois theory, Algebra 2A, and Algebra 1A, Faculty of Sciences, University of Bath, UK.
- Full staff member, Faculty of Mathematical Sciences, University of Khartoum, Sudan, 2007-present.

4. Teaching Experience I have taught a variety of courses at undergraduate level.

I. **Undergraduate Courses:** Some of the modules that I have taught are Galois Theory, Rings and Module Theory, Real Analysis II, Group Theory, Basic Mathematics, Algebra and Geometry, Number theory, Numerical Analysis and Functions of Several Variables.

II. **Postgraduate Courses:** Some of the modules that I have taught are:

- **Algebraic Geometry and Commutative Algebra**
  - MSc program, Royal University of Phnom Penh, Compodia, 2020.

- **Commutative Algebra**
  - MSc program, Eduardo Mondlane University, Maputo, 2020/2021.
  - MSc program, Dar-elsalaam University, Tanzania, 2018.

- **Advanced Algebra** The PhD Mathematics Program at Makerere University, Uganda, 2017.

- **Abstract Algebra** MSc program, University of Khartoum, Sudan, $2015-2016$.

- **Rings and Modules** MSc program, University of Khartoum, Sudan, $2015-2016$.

4. Research Experience

I. **Research Interest:** Group, rings and module Theory - (non)/ Commutative algebra - Representation Theory - Symplectic Algebras.

II. **Publications**

- L. Sorkatti, A bound for the class of Nilpotent Symplectic Alternating Algebras, Int. J. Algebra and Comp., 2022, DOI: 10.1142/S0218196722500035.

- A. Mortazavi, B. Davvaz and L.Sorkatti, Krasner H_v-homology Functors, submitted.

- L. Sorkatti and G. Traustason, Nilpotent Symplectic Alternating Algebras II, Int. J. Algebra and Comp. , 26 (2016), 1071-1094.

- L. Sorkatti and G. Traustason, Nilpotent Symplectic Alternating Algebras III, Int. J. Algebra and Comp. , 26 (2016), 1095-1124.

- L. Sorkatti and G. Traustason, Nilpotent symplectic alternating algebras I, J. Algebra, 423 (2015), 615-635.

- Cohomology and linear deformation of Symplectic Alternating Algebras, on preparation.

- (Text book in preparation) Mathematical challenges A course in problem solving with Prof. Paul Vaderlind

5. Conferences, Schools and Talks

June 2021	Co-organiser: Ongoing Algebra zoom seminar in Sudan.
May 2021	Zoom seminar on 'Women Mathematician in Sudan', The Tunisian Women Mathematicians' Association, The celebration of the day of May 12, 2021.
May 2021	Zoom seminar on nilpotent Symplectic alternating algebras, International Conference on Emeging Trends in Pure and Applied Mathematics, Bahrain University, Bahrain.
May 2021	Zoom seminar on Women Mathematician in Sudan, Gender Gap Science project, CWM Ambassadors.
Aug. 2017	A satellite intensive hands-on tutorial on the computational algebra system GAP, University of Birmingham, UK.
Dec. 2018	A Talk 'On Quivers and path algebras' at Makerere University, Uganda. (Keyword: Quivers, Reprn. of quivers,Gabriel's theorem, path algebra, The category of quiver representation and its equivalence with the category of K/gamma-modules, kac polynomials of quivers).
Aug. 2019	The 4th Network Meeting for Sida and ISP Funded PhD Students and Postdocs in Mathematics, Pyramid hotels & resorts, Bishoftu, Ethiopia.
Oct. 2018	Symplectic Alternating Algebras conferance, University of Rome (II), Rome, Italy.
Nov. 2018	Nilpotent Symplectic Alternating Algebras seminar at ICTP, Italy.

Aug. 2018	The 3rd network meeting at imperial botanical beach hotel in Entebbe - Uganda.
Nov. 2017	*- SAMSA Conference, presented a paper on Nilpotent Symplectic Algebras, Tanzania. *- Symplectic Alternating Algebras, A paper presented at the The 3rd Inverse Problems Africa: School an *- Survey on "Nil-solvable-Nilpotent" Symplectic Alternating Algebras, department of Math., Makerere University, Kampala – Uganda.
Aug. 2017	Nilpotent Symplectic Alternating Algebras, A paper presented at Groups - St. Andrews 2017 in University of Birmingham, UK.
July 2017	Co-organiser: "First national postgraduate workshop in Modeling in Sudan", Sudanese Math. Society at Faculty of Mathematical Sciences, Al-Neelain University, Sudan.
Oct. 2016	Nilpotent Symplectic Alternating Algebras, paper presentation at the third EAUMP conference: Advances in Mathematics and its Applications, Makerere University.
Aug. 2016	Nilpotent Symplectic Alternating Algebras, A paper presented at the First forum of mathematics in Sudan, Sudan University, Sudan.
Aug. 2016	Co-organiser: "First forum of mathematics in Sudan" by Sudanese Mathematical Society at Faculty of Sciences, El-Sudan University.
June 2016	Symplectic Alternating Algebras, Postgraduate seminars series, Faculty of Mathematical and statistical S Al-Neelien Univeristy, Sudan.
May 2016	Teaching Assistent & co-organiser of Mini conference "Mathematics Problem Solving Skills" by Prof. Joyati Debnath from Winona State University, USA for MSc program of Industrial and Computational Mathematics, University of Khartoum, Sudan.
Dec. 2015	Organiser of "Mathematics Olympiad workshop" to train leaders in Sudan, funded by Faculty of Mathematical Sciences, University of Khartoum, Sudan. Advisor: Prof. Paul Vaderlind, Department of Mathematics, Stockholm University.
July 2013	Symplectic Alternating Algebras, Paper presentation at Groups - St. Andrews, University of St. Andrews, UK.
April 2011	IT Competition at The college of information Technology, Zayed University, UAE.
Dec. 2010	EAUMP School on Linear Algebra and the Fast Fourier Transformation, Uganda (offered a full scholarship diploma at The Abdus Salam International Centre for Theoretical Physics, Italy being nominated as the best student).
Aug 2009	Groups - St. Andrews Conference 2009 in Bath, UK.
Sep. 2009	University Putra Malaysia (UPM), Johor, Malysia. Students scientific journey.
2009	14 Workshops on Linux (Linux Internals & Programming Essentials, Device Driver Programming on Linux , Network Programming on Linux, etc) by Linux Learning Centre held in the Faculty of Mathematical Sciences,University of Khartoum, Khartoum, Sudan.