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## Education

The [University of Sheffield](#), United Kingdom  
[2018–2022](#) | [PhD](#)

We classified a special case of the Poisson algebra class  $A = (K[t]; \alpha, \beta, c, u)$  that is a polynomial Poisson algebra in two variables  $x$  and  $y$  with coefficients in a polynomial Poisson algebra  $K[t]$  in one variable  $t$ . We classified class  $A = K[t][x, y]$ , over an algebraic closure field  $K$  with zero characteristic. We concluded that there are three main cases and each subcase consists of several subcases. We are interested in the Poisson spectra, maximal and minimal Poisson prime ideals for Poisson algebra  $A$  in each subcase. So, we classify all the Poisson prime ideals for these subcases to study properties of their Poisson enveloping algebras and some of simple Poisson finite dimensional  $A$ -modules. We present the containment from Poisson prime ideals for each subcase in figures. This work has been done under the supervision of [Prof. Vladimir Bavula](#).

The [University of Manchester](#), United Kingdom  
[2016–2017](#) | [Master's degree in Pure Mathematics and Mathematical Logic](#)

Modules I took included Group Theory, [Set Theory](#), [Galois Theory](#), [Noncommutative Algebra](#) and [Lie Algebras](#). I did a short project in the Mathieu group  $M_{24}$  and this work was done under the supervision of Prof. Peter Rolwley. In my final term, I wrote my dissertation, classified some simple finite groups, in particular, the Leech Lattice and Conway groups and this work was done under the supervision of [Prof. Peter Rolwley](#).

The [University of King Saud](#), Saudi Arabia  
[2008–2012](#) | [Bachelor's degree in Mathematics](#)

Modules I took included Integral Calculus, Foundations of Mathematics, Computational Mathematics, Differential and Integral Calculus, Vector Calculus, Linear Algebra, Numbers Theory, Introduction to Ordinary Equations, Numerical Analysis, Analysis, Group Theory, Introduction to Topology, History of Mathematics, Rings and Fields, Introduction to Partial Differential Equations, Introduction to Graphs and Combinatorics, Real Analysis, Introduction to Differential Geometry, Complex Analysis and Analysis in Several Variables. In my final term, I wrote a short project on Topology.

## English Language qualifications

- I. I studied general English in various colleges in Manchester from 2014 to 2015.
- II. I did a pre-sessional English course at [Manchester Metropolitan University](#) in 2015.
- III. I studied general English at the University of Manchester from 2015 to 2016.
- IV. I got 6 overall in IELTS exam that was on 25 June 2016.
- V. I did pre-sessional English course for 20 weeks at the University of Manchester in 2016.

## Participating in Conferences

- I. I presented a virtual poster with the title 'Poisson algebras' at the [British Mathematical Colloquium \(BMC\)](#) and the [British Applied Mathematics Colloquium \(BAMC\)](#) that was organised by the University of Glasgow, UK from 6 to 9 April 2021.
- II. I presented a virtual poster with the title 'Poisson algebras I' at the [Young Researchers in Mathematics conference](#) that was organised by the University of Bristol, UK from 7 to 9 June 2021.
- III. I presented a virtual poster with the title 'Poisson algebras I' at the [LMS Women in Mathematics Day](#) that was organised by the University of Strathclyde, UK on 16 June 2021.
- IV. I presented a virtual poster with the title 'Poisson algebras I' at the [Geoquant 2021, Geometry and Quantization](#) conferences that was organised by Freiburg University, Germany from 9 to 13 August 2021.
- V. I gave a short talk with the title 'Poisson brackets and Poisson prime ideals in polynomial algebras' at the [XI International Conference of the Georgian Mathematics Union](#) that was organised by the Batumi Shota Rustaveli State University, Georgia from 23 to 28 August 2021.
- VI. I gave a virtual short talk with the title 'Polynomial Poisson Algebras' at the [10<sup>th</sup> International Eurasian Conference on Mathematical Sciences and applications](#) in Sakarya, Turkey that was from 25 to 27 August 2021.
- VII. I gave a virtual short talk with the title 'An Introduction in Generalized Weyl Poisson Algebras' at the [8<sup>th</sup> International Congress on Fundamental and Applied Sciences](#) that was organised by Antalya Bilim Univeristy, Turkey from 19 to 21 October 2021.
- VIII. I gave a virtual short talk with the title 'Poisson algebras and Iterated skew polynomial algebras' at the [First International Conference on Mathematics and Computation](#) that was organised by Rajkiya Engineering College Kannauj, India from 22 to 23 October 2021.
- IX. I gave a virtual short talk with the title 'Poisson algebras' at the [LMS Graduate Student Meeting](#) that was organised by London Mathematical Society on 8 November 2021.

## Attending Conferences

- I. The British Mathematical Colloquium that was organised by the University of Lancaster, UK from 8 to 11 April 2019.
- II. The virtual British Young Mathematicians' Colloquium that was organised by the University of Birmingham, UK on 17 April 2019.
- III. The virtual [International Conference of Young Mathematicians](#) that was organised by the Institute of Mathematics of NAS of Ukraine from 3 to 5 June 2021.
- IV. The virtual [13th International Algebraic Conference in Ukraine](#) was organised by Taras Shevchenko National University of Kyiv, Ukraine from 6 to 9 July 2021.
- V. The virtual [British Early Career Mathematicians Colloquium](#) that was organised by Birmingham University, UK from 15 to 16 of July 2021.
- VI. The virtual [Conference on Rings and Polynomials](#) that was organised by TU Graz, Graz, Austria from 19 to 24 of July 2021.

- VII. The virtual conference in celebration of the work of Bill Crawley-Boevey from 1 to 10 September 2021.
- VIII. The virtual [Young Algebraists' Conference](#) that was organised by EPFL from 6 to 10 September 2021.
- IX. The virtual Black Heroes of Mathematics Conference from 5 to 6 October 2021.

## Summer schools/Workshops

- I. The virtual [Geoquant 2021, Geometry and Quantization](#) was organised by Freiburg University from 2 to 6 August 2021.
- II. The virtual [K-Theory and Representation Theory](#) from 19 to 23 July 2021.
- III. The virtual [finite and infinite-dimensional meeting on Lie groupoids, Poisson geometry and integrability](#) workshop from 16 to 20 August 2021.
- IV. The [power of women in deep learning](#) workshop in Isaac Newton Institute, Cambridge from 22 to 23 November 2021. I also presented my poster with the title 'Poisson algebras I'.

## Attending online workshops at the University of Sheffield

- I. Effective Online Presentations, 14 Jan 2021.
- II. Coaching Stressed, 25 Jan 2021.
- III. Online Presenting, 1 June 2021.
- IV. STA Lecturing, 8 June 2021.
- V. STA Research Supervision, 23 June 2021.
- VI. STA Assessment and Feedback, 7 July 2021.
- VII. Foundation Pathway Orientation, 27 September 2021.
- IX. STA Teaching Design and Delivery, 7 October 2021.

## Awards

- I. I was rewarded by the University of King Saud several times during my Bachelor's degree from 2009 to 2012.
- II. I was rewarded by the [Saudi Arabia Cultural Bureau](#) in London for my master's degree from 2016 to 2017.
- III. I was rewarded as a second winner by a virtual poster with the title 'Poisson algebra I' in the [Young Researchers in Mathematics conference](#) that was organised by the [University of Bristol](#), UK from 7 to 9 June 2021.
- IV. I was rewarded because I participate with a virtual poster with the title 'Poisson algebra I' at [LMS Women in Mathematics](#) Day that was organised by the University of Strathclyde, UK on 16 June 2021.
- V. I was rewarded by presenting a virtual short talk with the title 'Poisson algebras and Iterated skew polynomial algebras' at the [First International Conference on Mathematics and Computation](#) from 22 to 23 October 2021.
- VI. I was rewarded by the [Saudi Arabia Cultural Bureau](#) in London for my PhD degree in 2021.

## Current and Future Research Interests

When I was a graduate student I was interested in algebras, in particular field and ring theories, but after I did my master's degree and I studied non-commutative algebras and Lie algebras courses, I started to like them more. I really am interested in Lie algebras and Poisson algebras, but what I found is that non-commutative algebras are more spread, and people like if it has related to geometry or topology which also if it is applications in physics. So, I plan to build up my background in geometry and topology if I want to do more research in non-commutative algebra.

## Research skills

- I. Writing and typing in Latex.
- II. Managing the time.
- III. Working harder.
- IV. Solving problems.

## Teaching experience and Marking

- I. I taught at the University of Imam Mohammad Ibn Saud 2013–2014 and 2017–2018.
- II. I have given tutorial classes in MAS003, MAS004, MAS114 and MAS156 at the University of Sheffield from 2019 to 2021.
- III. I have done marking in MAS004, MAS114 and MAS211 at the University of Sheffield from 2019 to 2021.

## Employment

I am a mathematics lecturer at the University of Imam Mohammad Ibn Saud in Saudi Arabia since 2014.

## Scholarships/Sponsorships

- I. I got a scholarship from the University of Imam Mohammad Ibn Saud in Saudi Arabia to study my master's degree at the University of Manchester from 2016 to 2017.
- II. I have gotten a scholarship from the University of Imam Mohammad Ibn Saud in Saudi Arabia to study my PhD at the University of Sheffield from 2018 to 2022.

## Membership

- I. I am a member of the Hong Kong Chemical, Biological and Environmental Engineering Society (HKCBEES) since 15 October 2021.
- II. I am a member of the Society for Industrial and applied mathematics (SIAM) 2021–2022.
- III. I am a member of the Institute of Mathematics and its Applications from October 2021 to January 2022.
- IV. I am a member of the London Mathematical Society (LMS) since 21 November 2021.

## Future plan

I am going back to teach and use my experience to help education development at the university of Imam Mohammad Ibn Saud. I am going to focus on publishing papers, organise and involve in mathematics conferences in\out of Saudi Arabia. The main aim in my career will be improving knowledge and delivering teaching in high quality of mathematics in the Saudi Arabia education. Also, I would like to improve my formal Arabic Language and know more about the history of the language.

## Interests

- I. I like traveling, taking photos, meeting people, making friends, reading books, drawing and doing sport.
- II. I like and enjoy puzzles.
- III. I am interested in Arabic/France Languages.
- IV. I am good at managing money.

## Contact

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