

WRYA K. KADIR

Kronstadveien 32a, 5053 Bergen

Webpage , Researchgate , LinkedIn , ORCID 

wrya.kadir@uib.no , +(47) 41248510 

EDUCATION

University of Bergen

PhD in Secure Communications
code-based cryptography, coding theory, boolean functions

*Mar. 2018 - Present
Bergen, Norway*

Royal Holloway University of London

MSc. in Mathematics of Cryptography and Communications (Distinction)
block ciphers, cryptanalysis of AES

*2012-2013
Egham, UK*

University of Sulaimani

BSc. in Mathematics (1st out of 49 graduated students)

*2005-2009
Sulaimani, Kurdistan-Iraq*

RESEARCH INTERESTS

- Linear codes
- Rank-metric codes
- Polynomials over finite fields
- Decoding algorithms
- Boolean functions

WORKING EXPERIENCE

Research Fellow

Informatics Department, University of Bergen

Mar. 2018- Present

Assistant Lecturer

Mathematics Department, University of Sulaimani

Oct. 2013- Mar. 2018

Guest Lecturer

Informatics Department, University of Human Development

Oct. 2015- Oct. 2017

Guest Lecturer

Mathematics Department, University of Garmian

Oct. 2013- Jul. 2015

Research Assistant

Mathematics Department, University of Sulaimani

Sep. 2009- Sep. 2011

Mathematics Teacher

Shahid jabbar Exemplary High School

Sep. 2010- Jul. 2011

MASTER SUPERVISION

- Ola Andreas Storstein

Dec. 2019 - May 2021

Topic: *On Decoding of Rank Metric Codes*

ACADEMIC ACTIVITIES

- **Cryptography and Coding Theory - First Annual Conference**
Virtual Event *21 - 22 Sep. 2021*
- **The 6th International Workshop on Boolean Functions and their Applications (BFA)**
Rosendal, Norway *06 - 10 Sep. 2021*
- **IEEE International Symposium on Information Theory (ISIT)**
Melbourne, Victoria, Australia *12 - 20 Jul. 2021*
- **Student Representative of COINS Research School** *2020 - 2021*
- **Sequences and Their Applications Conference (SETA)**
Saint-Petersburg, Russia *22 - 25 Sep. 2020*
- **The 5th International Workshop on Boolean Functions and their Applications (BFA)**
Loen, Norway *15 - 17 Sep. 2020*
- **Organising Committee of ICT Research School**
OS, Norway *31 Oct. - 01 Nov 2019*
- **Munich Workshop on Coding and Cryptography**
Technical University of Munich, Germany *15 - 16 Jul. 2019*
- **The Eleventh International Workshop on Coding and Cryptography (WCC)**
L'Abbaye de Saint-Jacut-de-la-Mer, France *31 Mar. - 05 Apr. 2019*
- **Post-Quantum Cryptography Workshop**
Oxford University, UK *18 - 22 Mar. 2019*
- **The 3rd International Workshop on Boolean Functions and Their Applications (BFA)**
Loen, Norway *17 - 22 Jun. 2018*
- **COINS Winter School**
Finse, Norway *06 - 11 May 2018*

RELEVANT COURSES

- **Theory of Science and Ethics** *Spring 2020*
University of Bergen
- **Teaching Methods** *JUn. 2014 - Aug. 2014*
University of Sulaimani
- **Educational Psychology** *Jun. 2014 - Aug. 2014*
University of Sulaimani

TEACHING

University of Bergen

Mar. 2018 - Jun. 2021

Department of Informatics - Teaching Assistant

- Applied Cryptography (INF 143)
- Introduction to Cybersecurity (INF 140)
- Introduction to Cryptanalysis of Symmetric Ciphers (INF 247)
- Basic Codes (INF 240)
- Modeling and Optimization (INF170)

University of Sulaimani

Oct. 2013 - Mar. 2018

Department of Mathematics - Assistant Lecturer

- Advanced Calculus
- Finite Mathematics
- Calculus
- Linear Algebra
- Probability and Statistics

University of Human Development

Oct. 2015 - Oct. 2017

Department of Informatics - Guest Lecturer

- Probability and Statistics
- Discrete Mathematics

University of Garmian

Oct. 2013 - Jul. 2015

Department of Mathematics - Guest Lecturer

- Ordinary Differential Equations
- Advanced Calculus

University of Sulaimani

Sep. 2009 - Sep. 2011

Department of Mathematics - Research Assistant

- Probability and Statistics
- Mathematical Analysis
- Advanced Calculus
- Finite Mathematics

Shahid jabbar Exemplary High School

Sep. 2010 - Jul. 2011

- 8th Grade Mathematics

PUBLICATIONS AND CONFERENCE PAPERS

1. **Wrya K. Kadir** "A Delicately Restricted Channel and Decoding of Maximum Rank Distance Codes". IEEE XVII International Symposium Problems of Redundancy in Information and Control Systems, *Redundancy 2021*.
2. **Wrya K. Kadir**, Chunlei Li, Ferdinando Zullo "Decoding a class of maximum Hermitian rank metric codes". *The 6th International Workshop on Boolean Functions and their Applications*, BFA 2021.

3. **Wrya K. Kadir**, Chunlei Li, Ferdinando Zullo “On interpolation-based decoding of a class of maximum rank distance codes”. *IEEE International Symposium on Information Theory , ISIT 2021*.
4. Alessio Meneghetti, **Wrya K. Kadir** ”Characterisation of the parameters of maximum weight spectrum codes according to their spread”. *Sequences and Their Applications SETA 2020*.
5. Yibo Wang, **Wrya K. Kadir**, Chunlei Li and Yongbo Xia ”On cryptographic properties of the Welch permutation and a related conjecture”. *Sequences and Their Applications SETA 2020*.
6. **Wrya K. Kadir**, Chunlei Li “On decoding additive generalized twisted Gabidulin codes”. *Cryptography and Communications* ,12, 987–1009, 2020.
7. Chunlei Li, **Wrya K. Kadir** “On decoding additive generalized twisted Gabidulin codes”. *International Workshop on Coding and Cryptography, WCC 2019*.
8. Mohammed R. Namiq, **Wrya K. Kadir**, Aram M. Ahmed “A New Cryptosystem For Encryption And Decryption Using Elliptic Curve In Cryptography Over Finite Fields”. *Journal of Theoretical & Applied Information Technology* , 96(01) , 2018.
9. **Wrya K. Kadir**, Omed H. Ahmed, Mohammed R. Namiq “A New Text Encryption Technique on Elliptic Curve Cryptography ” *Journal of Engineering & Applied Sciences*, 12(13)3329-3333 , 2017.
10. Sarkar H. Ahmed, Aram M. Ahmed, Omed H. Ahmed, **Wrya K. Kadir** “Combining steganography and cryptography on android platform to achive a high-level security”. *Journal of Engineering & Applied Sciences*, 12(17)4448-4452, 2017.
11. Adil K. Jabbar, Noor H. hassan, **Wrya K. Kadir**“Some properties which are preserved under localization of commutative rings and modules”. *General Mathematics Notes*, 35(01):36–44, 2016.
12. Halgwrđ M. Darwesh , **Wrya K. Kadir** “Some Types of Maximal Sets Via λc -Open Sets”. *2nd conference of the college of education at the University of Garmian* , 2016.
13. Halgwrđ M. Darwesh, Sarhad F. Namiq, **Wrya K. Kadir** “Maximal λc -Open Sets”. *ICNC 2016*, pp.157-164, 2016.

SKILLS

Programming skills:

C, Python, MAGMA

Languages:

English, Kurdish, Persian, Arabic, Norsk

REFERENCES

- Dr. Chunlei Li
`chunlei.li@uib.no`
 Associate professor at Informatics department
 University of Bergen
PhD Supervisor
- Dr. Ferdinando Zullo
`ferdinando.zullo@unicampania.it`
 Researcher at Dipartimento di Matematica e Fisica
 Università degli Studi della Campania ”Luigi Vanvitelli”
Co-author