

WORK EXPERIENCE

Lecturer, in **CS Study Program, Informatics Engineering Department, Undiksha** 2022–now

EDUCATION

Ph.D. in Computer Science, at **ENS de Lyon, France** 2018–2021

Dissertation: “Width parameters on even-hole-free graphs”, advisor: Nicolas Trotignon

M.Sc. in Computer Science, at **ENS de Lyon, France** 2016–2018

Thesis: “The structure of even-hole-free graphs”

B.A. in Mathematics Education, at **Universitas Pendidikan Ganesha, Indonesia** 2010–2014

Thesis: “On the constructions of counting sequence based on Gray code”

INTERNSHIPS/EXPERIENCES

Research intern at LIP Laboratory of ENS de Lyon Lyon, France

“Research on the structure of even-hole-free graphs”, directed by Nicolas Trotignon Jan 2018–July 2018

Research intern G-SCOP Laboratory Grenoble, France

“Developing an algorithm to recolor d -degenerate graphs”, directed by Nicolas Bousquet May 2017–July 2017

Research Intern at Dept. of Mathematics Edu., Ganesha Univ. of Education Bali, Indonesia

“Research related to some properties of Gray code”, directed by I Nengah Suparta Jan 2014–June 2014

Mathematics teaching intern at the public Junior High School SMPN 1 Singaraja Bali, Indonesia

Teaching students in grade 7 - 9 July 2013–Sept 2013

SPECIALIZATION AND INTEREST

I majored in Discrete Mathematics and Theoretical Computer Science. My PhD topic is Structural Graph Theory. I am also interested in various Mathematics topics and practical aspects of Computer Science.

SKILLS

- Tex, Python, HTML

LANGUAGES

- **Indonesian:** native speaker
- **English:** fluent
- **French:** basic communication skill

PUBLICATIONS/PREPRINTS/WORK IN PROGRESS

- [1] L. Cook, J. Horsfield, M. Preissmann, C. Robin, P. Seymour, N. L. D. Sintuari, N. Trotignon, and K. Vušković, “Graphs with all holes the same length (submitted)”, 2021+.

- [2] J. Horsfield, M. Preissmann, C. Robin, N. L. D. Sintiari, N. Trotignon, and K. Vušković, “When all holes have the same length”, 2021+.
- [3] N. L. D. Sintiari and N. Trotignon, “Structure of even-hole-free graphs of bounded maximum degree (in preparation)”, 2021+.
- [4] P. Aboulker, I. Adler, E. J. Kim, N. L. D. Sintiari, and N. Trotignon, “On the tree-width of even-hole-free graphs”, *CoRR*, vol. abs/2008.05504 (*to appear in European Journal of Combinatorics*), 2020.
- [5] M. Pilipczuk, N. L. D. Sintiari, S. Thomassé, and N. Trotignon, “(theta, triangle)-free and (even hole, k_4)-free graphs. part 2 : Bounds on treewidth”, *CoRR*, vol. abs/2001.01607 (*to appear in Journal of Graph Theory*), 2020.
- [6] N. L. D. Sintiari and N. Trotignon, “(theta, triangle)-free and (even hole, k_4)-free graphs. part 1 : Layered wheels”, *CoRR*, vol. abs/1906.10998 (*to appear in Journal of Graph Theory*), 2019.

TALKS

- 3rd Indonesian Combinatorial Society seminar (online) November 2021
Title: On the decomposition of hereditary graph classes (30 minutes)
- 8th European Congress of Mathematics (online) June 2021
Title: On the tree-width of even-hole-free graphs (20 minutes)
- e-PCC Seminar Series (online) April 2021
Title: A survey on even-hole-free graphs
- 22e Journées Graphes et Algorithmes (online) November 2020
Title: On the treewidth of even-hole-free graphs (20 minutes)
- 21e Journées Graphes et Algorithmes, Bruxelles, Belgium November 2019
Title: Layered wheels (20 minutes)
- 4th International Conference in Graph Theory and Information Security, Jember, Indonesia July 2019
Title: Problems around even-hole-free graphs (15 minutes)
- 9th International Conference on Graph Theory, Bled, Slovenia June 2019
Title: Layered wheels (20 minutes)
- Workshop on Even-Hole-Free Graphs, Belgrade, Serbia April 2019
Title: Even-hole-free graphs of large treewidth (30 minutes)

TEACHING (FORMAL/INFORMAL)

- **Teaching Assistant** at Computer Science Department of ENS de Lyon
 - Information Theory; Performance Analysis and Network; Introduction to Computer Science (Master) Fall 2020
 - Probability (Bachelor) Spring 2020
 - Information Theory (Master) Fall 2019
 - Cryptography and Security (Master) Spring 2019
 - Optimization and Approximation (Master) Fall 2018
- **Teaching Assistant** at Mathematics Education Dept. of Ganesha University of Education
 - Basic Coding Theory (Bachelor) Spring 2015
 - Combinatorics (Bachelor) Fall 2014
 - Fundamental of Trigonometry (Bachelor) Fall 2012
- **Mathematics Teacher** at Private High School SMA Kertha Wisata Singaraja, Bali, Indonesia 2013–2014

- **Informal Teaching**

From 2010 to 2015, I worked as a private mathematics teacher for school students in Bali, Indonesia. Every now and then I also guided the Balinese delegation who compete in the Indonesian National Mathematics Olympiad. From 2015 to 2016, I worked as a private tutor for university students in the city of Bandung, West Java, Indonesia. Now, I'm occasionally teach students to prepare them for Mathematics competition.

JOURNAL REVIEWS/REFEREE

- Discrete Mathematics; Journal of Graph Theory; Electronic Journal of Graph Theory and Applications

SCIENTIFIC DISSEMINATION

- 8th European Congress of Mathematics (online due to COVID-19) June 2021
- 22e Journées Graphes et Algorithmes (online due to COVID-19) November 2020
- École de Jeunes Chercheurs en Informatique Mathématique 2020 (online due to COVID-19) June 2020
- ANR Digraph first meeting, Cabasse, France January 2020
- 21e Journées Graphes et Algorithmes, Bruxelles Belgium November 2019
- Bordeaux Graph Workshop, Talence, France October 2019
- Conference in Graph Theory: A Tribute to Frédéric Maffray, Grenoble, France September 2019
- 4th International Conference in Graph Theory and Information Security, Jember, Indonesia July 2019
- 9th International Conference on Graph Theory, Bled, Slovenia June 2019
- Workshop on Even-Hole-Free Graphs, Belgrade, Serbia April 2019
- 20e Journées Graphes et Algorithmes, Grenoble, France November 2018
- 10th International Colloquium on Graph Theory and Combinatorics, Lyon, France July 2018
- 6th Seminar of Project ANR STINT, Saint-Maurice en Valgaudemar, France July 2017
- CIMPA School on Coding Theory and Lattice for Cryptography, at VNUHCM-University of Science, Vietnam, August 2016
- Summer School on Algebra, Statistics, and Combinatorics, at Aalto University, Finland May 2016
- SEAMS School on Coding and Graph Theory, at Hasanuddin University, Indonesia October 2015
- International Conference on Mathematics, at Hasanuddin University, Makassar, Indonesia October 2015
- SEAMS School on Number Theory and Its Application in Cryptography and Coding Theory, at VNUHCM-University of Science, Vietnam September 2015
- 2nd International Conference on Graph Theory and Information Security, Bandung, Indonesia September 2015
- SEAMS School on Combinatorics, at the Institute of Mathematics, VAST, Hanoi, Vietnam March 2015

SELECTED HONORS AND AWARDS

- Awarded Contrat Doctoral Spécifique Normalien (for PhD program) given by ENS de Lyon 2018–2021
- ACE (Activité Complémentaire d'Enseignement) – a teaching fellowship program at ENS de Lyon 2018–2021
- Awarded LPDP Scholarship to do Master's study by the Ministry of Finance Indonesia 2016–2018
- Honored as Mahasiswa Berprestasi Undiksha 2014
- Honorable Mention in the Indonesian National Olympiad of Mathematics for University Students 2014
- Indonesian delegation in the 20th International Mathematics Competition 2013
- Bronze Medal in the Indonesian National Olympiad of Mathematics for University Students 2013
- 2nd place in the National Science Olympiad in Mathematics (Bali sector) held by PT Pertamina Indonesia 2011
- Awarded Bidikmisi Scholarship for Bachelor by the Ministry of Research and Technology Indonesia 2010–2014

GRANTS

- Travel grant to attend CIMPA School at Ho Chi Minh University of Science, Vietnam August 2016
Topics: Coding Theory and Lattice for Cryptography, grant given by CIMPA
- Travel grant to attend Summer School at Aalto University, Finland May 2016
Topics: Algebra, Statistics, and Combinatorics, grant given by Aalto University
- Travel grant to attend SEAMS School at Hasanuddin University, Indonesia October 2015
Topics: Coding and Graph Theory, grant given by SEAMS (Southeast Asian Mathematical Society)
- Travel grant to attend SEAMS School at Ho Chi Minh University of Science, Vietnam September 2015
Topics: Number Theory and Its Application in Cryptography and Coding Theory, grant given by SEAMS
- Travel grant to attend SEAMS School at the Institute of Mathematics, VAST, Hanoi, Vietnam March 2015
Topics: Combinatorics, grant given by SEAMS
- Grant for community services given by the Ministry of Research and Technology of Indonesia 2013
Leading organizer of 3-days workshop “Prevention of the spread of HIV/AIDS” – in collaboration with the Dept. of Health and National AIDS Commission of Buleleng District, Bali, Indonesia
- Grant for community services given by the Ministry of Research and Technology of Indonesia 2011
Leading organizer of 2-months workshop “Dancing and painting” for children with intellectual disabilities – in collaboration with SLB C Singaraja (special school for children with intellectual disabilities), Bali, Indonesia

PROJECTS

- Mathematics Competition Book (published in 2012), by Math. Edu. Dept. of Ganesha Univ. of Education
Three series of books: for the elementary, junior, and high school levels

REFERENCES

- Nicolas Trotignon, ENS de Lyon (nicolas.trotignon@ens-lyon.fr)

EXTRACURRICULAR ACTIVITIES

- Active in the Perhimpunan Pelajar Indonesia (Indonesian Students Association) in Lyon, France 2016–2021
Conducting various activities involving Indonesian students in Lyon
- Organizer of PhD days 2020 at LIP Laboratory of ENS de Lyon 2019
Annual event for PhD students at LIP Laboratory (cancelled due to COVID-19)
- Program chairs in the First International Symposium on Applied Science and Technology 2019–2020
A symposium organized by Indonesian students in America and Europe (cancelled due to COVID-19)
- Chief of Journalistic Division in the Student Council of Math. Edu. Dept. of Undiksha 2012–2013
Conducting journalistic activities, I was a member of the team from 2010 to 2014
- Secretary of Academic Division in the Student Senate of FMNS Undiksha 2012–2013
Represent the student body to the college administration, organizing academic events involving students
- Mathematics Tutor for the Orphanage at “Panti Asuhan Dana Punia” in Buleleng Regency, Bali, Indonesia 2010
Volunteering teaching activities