Curriculum Vitae

Khac-Hoang Ngo

October 31, 2025

Affiliation: Department of Electrical Engineering, Linköping University, Sweden

Name: Khac-Hoang Ngo Position: Assistant Professor

National University of Singapore

Tel: +46 7 02 71 55 58 Email: khac-hoang.ngo@liu.se, khachoang1412@gmail.com Website: khachoang1412.github.io	
EDUCATION	
• Ph.D. in Wireless Communications	2020
CentraleSupélec, Paris-Saclay University, France	
Thesis: Noncoherent Wireless Communications: Fundamental Limits and Sys	stem Design
Advisors: Prof. Sheng Yang, Dr. Maxime Guillaud	
• M.Sc. in Wireless Communications	2016
CentraleSupélec, Paris-Saclay University, France	
Thesis: Performance Analysis of Coded Caching	
Advisors: Prof. Mari Kobayashi, Prof. Sheng Yang	
• B.E. in Electronics and Telecommunications	2014
Univ. of Engineering and Technology (UET), Vietnam National University H	Ianoi (VNU)
Thesis: Software-Defined-Radio Implementation of OFDM-based Physical Lay	er Network Coding
Advisors: Assoc. Prof. Nguyen Linh Trung, Assoc. Prof. Nguyen Quoc Tuan	L
Work Experience	
• Assistant Professor	09/2024-present
Linköping University, Sweden	, -
Adjunct Lecturer	03/2021 – present
Advanced Institute of Engineering and Technology (AVITECH), UET, VNU,	Vietnam
• Postdoc Researcher	09/2020-08/2024
Chalmers University of Technology, Sweden	
• Research Engineer	11/2016-06/2020
Huawei Paris Research Center, France	
• Ph.D. Student	07/2017-06/2020
CentraleSupélec, Paris-Saclay University, France	
• Research Assistant	02/2016 - 10/2026
CentraleSupélec, Paris-Saclay University, France	
• Research Assistant	07/2014 - 08/2015
Vietnam National University Hanoi	
• Intern	12/2013 - 03/2014
Vietnam Posts and Telecommunications Group	
• Intern	07/2012 - 08/2012

SELECTED HONORS A	and /	WARDS
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- Golden Globe Award in Science and Technology for under-35 Vietnamese researchers, 2024
- Best Paper Award, IEEE Statistical Signal Processing Workshop (SSP), 2023
- Featured in the spotlight of the 7th and 9th Heidelberg Laureate Forum, Germany, 2019 and 2022
- Marie Sklodowska-Curie Actions Individual Fellowship, 2021
- Best Paper Award, Int. Conf. on Advanced Technologies in Communications (ATC), 2021
- Signal, Image & Vision Ph.D. Thesis Prize by EEA, GRETSI and GdR-ISIS, France, 2021
- "Impact Science" Second Prize for Ph.D. thesis, CentraleSupélec Foundation, France, 2021
- Graduate with first-class honors in both bachelor's and master's levels, 2014 and 2016
- Honda Young Engineers and Scientists Award, Honda Foundation, Japan, 2013

FUNDED	RESEARCH	GRANTS	
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Participated* or took lead** in proposal writing

- **Point-Cloud Transmission for Remote Registration, Wallenberg AI, Autonomous Systems and Software Program (WASP), Sweden, amount: 8M SEK, role: PI, 2025–2029
- *Theory for the Privacy-Security Trade-off in *Practical* Federated Learning, Swedish Research Council, amount: 5M SEK, role: co-PI, 2024–2028
- *Theory for the Privacy-Security Trade-off in Federated Learning, Wallenberg AI, Autonomous Systems and Software Program (WASP), Sweden, amount: 4M SEK, role: co-PI, 2023–2027
- **LANTERN: Low-latency and private edge computing in random-access networks, Marie Sklodowska-Curie Individual Fellowship, amount: 200K EURO, role: PI, 2021–2023
- *Agricultural Internet of Things Based on Edge Computing, ICT Virtual Organization of ASEAN Institutes and Japan's NICT, amount 80K USD, role: co-PI, 2022–2024
- *Connecting the Unconnected: A Tool for Digital Inclusion, AlumNode Funding, Klaus Tschira Foundation, Germany, amount: 5K EURO, role: co-PI, 2021–2022

Research Profile		

- Interests: Wireless Communications, Information Theory
 Topics: massive random access, point-cloud transmission, information freshness, data privacy,
 AI security, MIMO, noncoherent communications, coded caching, network coding
- Google scholar profile:

Number of citations: 535, h-index: 12, i10-index: 15

• List of publications at the end of the CV

PEDAGOGICAL TRAINING	

• Diploma in Teaching and Learning in Higher Education Chalmers University of Technology, Sweden Courses: 2024

- University Teaching and Learning (2.5 ECTS credits)
- Diversity and Inclusion for Learning in Higher Education (2 ECTS credits)
- Theoretical Perspectives on Learning (2.5 ECTS credits)
- Supervising Writing Processes (2.5 ECTS credits)

- Minor independent study in Teaching and Learning in Higher Education (0.5 ECTS credits)
- Pedagogical Project (4.5 ECTS credits)
- Reflections on Teaching and Learning in Higher Education (0.5 ECTS credits)
- Courses completed at Linköping University, Sweden:
 - Higher education pedagogy for PhD supervisors (4 ECTS credits)

TEACHING EXPERIENCE _

Lecturer at Linköping University

- Fall 2025: TSIN01 Information Networks (master's course, 6 credits)
- Spring 2026: TSKS36 Digital and Wireless Communications (master's course, 6 credits)

Teaching Assistant at Chalmers

- Spring 2023, Spring 2024: Wireless Communications (master's course, 7.5 credits, ≈20 students)
- Spring 2021, Spring 2023: Information Theory (master's/Ph.D. course, 7.5 credits, \approx 20 students)
- Fall 2021, Fall 2023: *High-Dimensional Statistics* (master's/Ph.D. course, 7.5 credits, ≈12 students)

Guest Lectures

 Modern random access protocols: coded slotted ALOHA, in the course Information Networks, Linköping University, Oct. 2024

Supervising Experience: Co-supervisor _____

PhD Students

- Garima, Point cloud transmission for remote registration, Linköping University, Sweden, starting in 10/2025
- Shipeng Liu, *Point cloud transmission for remote registration*, Linköping University, Sweden, started in 08/2025
- Amandus Reimer, *The privacy-security trade-off in practical federated learning*, Chalmers University of Technology, Sweden, started in 03/2025
- Marcus Lassila, Theory for the privacy-security trade-off in federated learning, Chalmers University of Technology, Sweden, started in 09/2023

Master Theses/Projects

- Xi Zhang, Learning joint detection and decoding in short-packet communications, Chalmers University of Technology, Sweden, 09/2023–08/2024, now Ph.D. student at Tampere University, Finland
- Khodor Safa and Shanglin Yang, MIMO detection under the generalized Gaussian model, CentraleSupélec, France, 03/2021
- Wassim Khelil, Mohamed Idriss Khaledi, and Anas Ouallou, Embracing non-linearities in future wireless systems via non-convex optimization, CentraleSupélec, France, 03/2020

Bachelor Theses

 Noa Paguera (Erasmus exchange student), Knowledge distillation for light-weight smart wireless devices, Linköping University, Sweden, 08/2025-01/2026

• Member

- IEEE, since 2017
- ACM (2022–2023)
- Association of Vietnamese Science and Technology Experts in Sweden (AVISE), since 2024
- Examination committee member in research degree examinations
 - Diego Cuevas Fernández, Advanced Grassmannian Constellation Designs for Noncoherent MIMO Communications, Ph.D. Thesis, University of Cantabria, Spain, Nov. 2024
- Copyeditor for ICT Research Journal, Vietnam Ministry of Information and Communications, 2021
- Reviewer for research grant applications:
 - National Foundation for Science and Technology Development (NAFOSTED), Vietnam, 2023

• Reviewer for international journals:

- IEEE Transactions on Information Theory
- IEEE Transactions on Wireless Communications
- IEEE Transactions on Communications
- IEEE Transactions on Vehicular Technology
- IEEE Transactions on Signal Processing
- IEEE Transactions on Signal and Information Processing over Networks
- IEEE Transactions on Green Communications and Networking
- IEEE Internet of Things Journal
- IEEE Journal on Selected Areas in Information Theory
- IEEE Journal on Selected Areas in Communications
- IEEE Communications Letters
- IEEE Wireless Communications Letters
- IEEE Vehicular Technology Magazine
- IET Electronics Letters
- Elsevier Pervasive Mobile Computing
- Physical Communication
- Entropy, MDPI

Reviewer for domestic journals

- ICT Research Journal, Vietnam Ministry of Information and Commun.
- VNU Journal of Science: Computer Science and Commun. Engineering

• Reviewer for conferences:

- IEEE Int. Symp. on Information Theory (ISIT): 2020, 2022, 2023, 2025
- IEEE Information Theory Workshop (ITW): 2018, 2021
- IEEE Global Communications Conference (GLOBECOM): 2017, 2023
- IEEE Int. Conf. on Communications (ICC): 2017, 2018, 2023, 2024
- IEEE Wireless Commun. and Networking Conf. (WCNC): 2022, 2024, 2025
- IEEE Int. Workshop on Signal Process. Adv. Wireless Commun. (SPAWC): 2019
- IEEE Int. Symp. Personal, Indoor and Mobile Radio Commun. (PIMRC): 2025

- IEEE Int. Conf. on Acoustics, Speech, and Signal Process. (ICASSP): 2023
- IEEE Statistical Signal Processing Workshop (SSP): 2023
- IEEE Int. Conf. on Communications and Electronics (ICCE): 2024
- Int. Symp. Model. & Opt. Mobile, Ad hoc, & Wireless Netw. (WiOpt): 2025
- International Symposium on Topics in Coding (ISTC): 2018
- Asilomar Conf. on Signals, Systems, and Computers: 2021, 2022, 2023, 2024, 2025
- Int. Symp. on Wireless Communication Systems (ISWCS): 2018, 2021
- Int. Symp. on Communication and Information Technology (ISCIT): 2019
- Int. ITG Workshop on Smart Antennas (WSA): 2021, 2023
- Int. Conf. on Advanced Techno. in Commun. (ATC): 2021, 2022, 2023
- IEEE-RIVF Int. Conf. on Computing and Commun. Technologies: 2022
- NAFOSTED Conf. on Information and Computer Science (NICS): 2018
- APSIPA Annual Summit and Conference: 2022, 2023, 2024
- Int. Conf. on Control, Automation and Inf. Sciences (ICCAIS): 2023

• TPC member for conferences

- IEEE Int. Symp. on Information Theory (ISIT): 2026
- IEEE Wireless Commun. Netw. Conf. (WCNC): 2024, 2025
- IEEE Int. Symp. Personal, Indoor and Mobile Radio Commun. (PIMRC): 2025
- Joint EuCNC & 6G Summit: 2023, 2025
- Int. Conf. Control, Auto. Inf. Sciences (ICCAIS): 2023
- APSIPA Annual Summit and Conference: 2023
- Int. Symp. Inf. Commun. Techno. (SoICT): 2022, 2023
- Int. ITG Workshop Smart Anten. (WSA): 2023

• Organizing member for conferences

- Workshop organizer and chair, International Workshop on Resource Allocation and Cooperation in Wireless Networks (RAWNET), International Symposium on Modeling and Optimization in Mobile, Ad hoc, and Wireless Networks (Wiopt), Linköping, Sweden, 2025
- Session chair, IEEE GLOBECOM, Kuala Lumpur, Malaysia, 2023
- Communication track chair, Int. Conf. Adv. Techno. Commun. (ATC), Hanoi, Vietnam, 2022
- Track chair, 1st Int. Conf. Intel. of Things (ICIT), Hanoi, Vietnam, 2022
- Hot-topic panel discussion organizer, IEEE Int. Symp. World of Wireless, Mobile Multi. Netw. (WoWMoM), Belfast, UK, 2022
- Special session organizer, 25th Int. ITG Workshop Smart Antennas (WSA), France, 2021
- Special session organizer, Int. Conf. Advanced Techno. Commun. (ATC), Vietnam, 2021
- Scientific committee member, 1st Junior Conf. Wireless & Optical Commun., Paris-Saclay University, France, 2019
- Executive committee member, 1st Honda Forum for Young Engineers and Scientists, Tokyo, Japan, 2015
- Blog Activity Lead, IEEE Young Professionals (since February 2025)
- Founding member and admin of telecom-vn, a Facebook group for Vietnamese researchers in telecommunications. Organize seminars (https://www.youtube.com/@telecom-vn3811) and maintain research discussions.
- Science communicator for the Vietnamese community

- Seminar "How to keep information fresh?", 11/2024
- Online workshop "Data Science, Machine Learning, and Artificial Intelligence in Digital Transformation", 11/2021
- Online workshop "Preparing for Tomorrow" about career paths in science and technology for high-school students in Vietnam, 11/2021
- Online workshop "ICT Convergence Shaping the Future of Vietnam", 10/2020
- Online public science lecture "Wireless Communications: Basics and Applications" to around 120 Vietnamese attendees, 06/2020

• Participant of Scientific Forums

- 7th and 9th Heidelberg Laureate Forum, Germany, 09/2019 and 09/2022
- 2nd and 3rd Global Young Vietnamese Scholars Forum, Vietnam, 11/2019 and 11/2020
- Honda Young Engineers and Scientists (Y-E-S) Forum, Tokyo, Japan, 11/2015
- Young Engineers and Scientists Tokyo Meeting, Tokyo, Japan, 11/2014

INVITED TALKS BY TOPIC _____

• Massive Random Access:

- Swedish Communication Technologies Workshop (1.5-hour tutorial, 10/2025)
- Aalborg University (04/2024)
- Linköping University (10/2023)
- Vietnam National University Hanoi (05/2023, 05/2021)
- INRIA Lyon (04/2023)
- CentraleSupélec (01/2023)
- Zugspitze Workshop on Communications (01/2023)
- Equipe Traitement de l'Information et Systèmes (ETIS) France (02/2022)
- H2020 INCOMING Summer School (1.5-hour tutorial, 06/2022)

• Age of Information:

- Association of Vietnamese Science and Technology Experts in Sweden (11/2024)
- University of Amsterdam (04/2024)
- Hanoi University of Science and Technology (12/2023)
- German Aerospace Center (DLR) (09/2022)

• Noncoherent Wireless Communications:

- 8th Francophone Symposium on Signal and Image Processing (GRETSI) France (09/2022)
- CentraleSupélec (12/2021, 06/2018)
- Club EEA France (06/2021)
- Vietnam National University Hanoi (08/2019, 11/2017)
- Technical University of Munich (09/2017)
- Coded Caching: Vietnam National University Hanoi (08/2016)

Media	Coverage	

- Interview in the spotlight of the 9th Heidelberg Laureate Forum about my research and the challenges in the field of telecommunications: https://scilogs.spektrum.de/hlf/hlff-spotlight-9th-hlf-2
- Interview with the French National Doctoral Network about my PhD journey: https://www.docteurs-spi.org/post/khac-hoang-ngo-marie-sk%C5%82odowska-curie-actions-fellow-chalmers-university
- Interview in the 10-out-of-200 list of participants of the 7th Heidelberg Laureate Forum about scientific research: https://scilogs.spektrum.de/hlf/10-out-of-200-serving-the-people-khac-hoang-ngo-improves-our-telecommunication/
- Various Vietnamese newspapers. See links HERE.

Languages	
Vietnamese (native), English (fluent), French (elementary), Swedish (beginner)	
List of Publications	

Preprints

[Pre1] Khac-Hoang Ngo, D. Cuevas, R. de Miguel Gil, V. Monzon Baeza, A. Garcia Armada, and I. Santamaria, "Noncoherent MIMO communications: Theoretical foundation, design approaches, and future challenges," submitted to IEEE Communications Surveys & Tutorials, May 2025. [Online]. Available: https://arxiv.org/pdf/2505.23172.

Book

[B1] N. L. Trung, V. N. Q. Bao, N. V. Ha, L. V. Ha, Khac-Hoang Ngo, et al., Two-way relay communications: theory and implementation. Hanoi, Vietnam: Vietnam National University Publishing House, 2025, Languague: Vietnamese.

Patent

[P1] Khac-Hoang Ngo, A. Decurninge, M. Guillaud, and S. Yang, "Transmitter and receiver communication apparatus for non-coherent communication," U.S. Patent 17/243,679, 19 August 2021.

Journal Papers

- [J1] Khac-Hoang Ngo, G. Durisi, A. Munari, F. Lázaro, and A. Graell i Amat, "Timely status updates in slotted ALOHA networks with energy harvesting," *IEEE Transactions on Communications*, 2025. [Online]. Available: https://arxiv.org/pdf/2404.18990.
- [J2] Khac-Hoang Ngo, G. Durisi, A. Graell i Amat, P. Popovski, A. E. Kalor, and B. Soret, "Unsourced multiple access with common alarm messages: Network slicing for massive and critical IoT," *IEEE Transactions on Communications*, vol. 72, no. 2, pp. 907–923, Feb. 2024. [Online]. Available: https://arxiv.org/pdf/2302.11026.pdf.
- [J3] Khac-Hoang Ngo, A. Lancho, G. Durisi, and A. Graell i Amat, "Unsourced multiple access with random user activity," *IEEE Transactions on Information Theory*, vol. 69, no. 7, pp. 4537–4558, Feb. 2023. [Online]. Available: https://arxiv.org/pdf/2202.06365.pdf.

- [J4] G. Gur, A. Kalla, C. de Alwis, Q.-V. Pham, **Khac-Hoang Ngo**, M. Liyanage, and P. Porambage, "Integration of ICN and MEC in 5G and beyond networks: Mutual benefits, use cases, challenges, standardization, and future research," *IEEE Open Journal of the Communications Society*, vol. 3, pp. 1382–1412, Aug. 2022.
- [J5] Khac-Hoang Ngo, S. Yang, M. Guillaud, and A. Decurninge, "Joint constellation design for noncoherent MIMO multiple-access channels," *IEEE Transactions on Information Theory*, vol. 68, no. 11, pp. 7281–7305, Jul. 2022. [Online]. Available: https://arxiv.org/pdf/2009.11548.pdf.
- [J6] A. U. Rahman, F. Fourati, **Khac-Hoang Ngo**, A. Jindal, and M.-S. Alouini, "Network graph generation through adaptive clustering and infection dynamics: A step towards global connectivity," *IEEE Communications Letter*, vol. 26, no. 4, pp. 783–787, Jan. 2022. [Online]. Available: https://arxiv.org/pdf/2111.10690.pdf.
- [J7] F. Zhang, **Khac-Hoang Ngo**, S. Yang, and A. Nosratinia, "Transmit correlation diversity: Generalization, new techniques, and improved bounds," *IEEE Transactions on Information Theory*, vol. 68, no. 6, pp. 3841–3869, Jan. 2022, (Zhang and Ngo contributed equally to the technical content). [Online]. Available: https://arxiv.org/pdf/2104.09711.pdf.
- [J8] Khac-Hoang Ngo, A. Decurninge, M. Guillaud, and S. Yang, "Cube-split: A structured Grassmannian constellation for non-coherent SIMO communications," *IEEE Transactions on Wireless Communications*, vol. 19, no. 3, pp. 1948–1964, Mar. 2020. [Online]. Available: https://doi.org/10.1109/TWC.2019.2959781.
- [J9] Khac-Hoang Ngo, M. Guillaud, A. Decurninge, S. Yang, and P. Schniter, "Multi-user detection based on expectation propagation for the non-coherent SIMO multiple access channel," *IEEE Transactions on Wireless Communications*, vol. 19, no. 9, pp. 6145–6161, Sep. 2020. [Online]. Available: https://arxiv.org/pdf/1905.11152.pdf.
- [J10] T.-T.-Q. Tran, L. V. Nguyen, Khac-Hoang Ngo, L.-T. Nguyen, Q.-T. Nguyen, N.-Q.-B. Vo, X.-N. Tran, E. Bastug, S. Azarian, M. Debbah, and P. Duhamel, "Network coding with multimedia transmission and cognitive networking: An implementation based on software-defined radio," REV Journal on Electronics and Communications, vol. 10, no. 3-4, pp. 72–84, 2020, Invited Article. [Online]. Available: https://centralesupelec.hal.science/hal-03271773v1/document.
- [J11] Khac-Hoang Ngo, S. Yang, and M. Kobayashi, "Scalable content delivery with coded caching in multi-antenna fading channels," *IEEE Transactions on Wireless Communications*, vol. 17, no. 1, pp. 548–562, Jan. 2018. [Online]. Available: https://doi.org/10.1109/TWC.2017.2768361.

Conference Papers

- [C1] N.-S. Duong, Khac-Hoang Ngo, T.-M. Dinh-Thi, and V.-L. Nguyen, "Sparse orthogonal matching pursuit-based parameter estimation for integrated sensing and communications," in *IEEE INFOCOM Workshop*, London, UK, 2025. [Online]. Available: https://arxiv. org/pdf/2503.02293.
- [C2] Khac-Hoang Ngo, G. Durisi, and P. Popovski, "Information age and correctness for energy harvesting devices with random access," in *IEEE Global Communications Conference* (GLOBECOM), Taipei, Taiwan, 2025. [Online]. Available: https://arxiv.org/pdf/2501.14522.

- [C3] Khac-Hoang Ngo and E. G. Larsson, "Breaking the TDD flow for over-the-air phase synchronization in distributed antenna systems," in *IEEE Global Communications Conference (GLOBECOM)*, Taipei, Taiwan, 2025. [Online]. Available: https://arxiv.org/abs/2504.11411.
- [C4] Khac-Hoang Ngo, D. N. Nguyen, and T.-M. D. Thi, "Protocol design for irregular repetition slotted ALOHA with energy harvesting to maintain information freshness," in *IEEE Wireless Communications and Networking Conference (WCNC)*, 2025. [Online]. Available: https://arxiv.org/pdf/2411.01446.
- [C5] D. P. Krishnan, K. Okumus, Khac-Hoang Ngo, and G. Durisi, "An achievability bound for type-based unsourced multiple access," in *IEEE Symposium on Information Theory* (ISIT), 2025. [Online]. Available: https://arxiv.org/pdf/2504.19916.
- [C6] M. Lassila, J. Östman, Khac-Hoang Ngo, and A. Graell i Amat, "Practical bayes-optimal membership inference attacks," in *Conference on Neural Information Processing Systems* (NeurIPS), San Diego, CA, USA, 2025. [Online]. Available: https://arxiv.org/pdf/ 2505.24089.
- [C7] K. Okumus, Khac-Hoang Ngo, G. Durisi, and E. G. Ström, "Type-based unsourced multiple access over fading channels with cell-free massive MIMO," in *IEEE Symposium* on Information Theory (ISIT), 2025. [Online]. Available: https://arxiv.org/abs/2504. 19954.
- [C8] Khac-Hoang Ngo, D. P. Krishnan, K. Okumus, G. Durisi, and E. G. Ström, "Type-based unsourced multiple access," in *IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, 2024, pp. 911–915. [Online]. Available: https://arxiv.org/pdf/2404.19552.
- [C9] Khac-Hoang Ngo, J. Östman, G. Durisi, and A. Graell i Amat, "Secure aggregation is not private against membership inference attacks," in European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PKDD), Vilnius, Lithuania, Sep. 2024. [Online]. Available: https://arxiv.org/pdf/2403.17775.
- [C10] **Khac-Hoang Ngo**, J. Östman, and A. Graell i Amat, "Local mutual-information differential privacy," in *IEEE Information Theory Workshop (ITW)*, 2024. [Online]. Available: https://arxiv.org/pdf/2405.07596.
- [C11] N.-S. Duong, Q.-T. Nguyen, Khac-Hoang Ngo, and T.-M. Dinh-Thi, "Sparse Bayesian learning with atom refinement for mmWave MIMO channel estimation," in *IEEE Statistical* Signal Processing Workshop (SSP), Hanoi, Vietnam, Jul. 2023, pp. 155–159.
- [C12] Khac-Hoang Ngo, G. Durisi, A. Graell i Amat, A. Munari, and F. Lázaro, "Age of information in slotted ALOHA with energy harvesting," in *IEEE Global Communications Conference (Globecom)*, Kuala Lumpur, Malaysia, Dec. 2023. [Online]. Available: https://arxiv.org/pdf/2310.00348.pdf.
- [C13] Khac-Hoang Ngo, A. Graell i Amat, and G. Durisi, "Irregular repetition slotted ALOHA over the binary adder channel," in *IEEE International Conference on Communications* (*ICC*), Rome, Italy, May 2023. [Online]. Available: https://arxiv.org/pdf/2302.11720.pdf.
- [C14] N. T. Nguyen, N. Shlezinger, Khac-Hoang Ngo, V.-D. Nguyen, and M. Juntti, "Joint communications and sensing design for multi-carrier MIMO systems," in *IEEE Statistical Signal Processing Workshop (SSP)*, Best Paper Award, Hanoi, Vietnam, Jul. 2023, pp. 110–114. [Online]. Available: https://arxiv.org/pdf/2306.14006.pdf.

- [C15] Khac-Hoang Ngo, G. Durisi, A. Graell i Amat, P. Popovski, B. Soret, and A. E. Kalør, "Unsourced multiple access for heterogeneous traffic requirements," in 56th Asilomar Conference on Signals, Systems, and Computers, Invited Paper, CA, USA, Oct. 2022, pp. 687–691.
- [C16] Khac-Hoang Ngo, G. Durisi, and A. Graell i Amat, "Age of information in prioritized random access," in 55th Asilomar Conference on Signals, Systems, and Computers, Invited Paper, CA, USA, Oct. 2021, pp. 1502–1506. [Online]. Available: https://arxiv.org/pdf/2112.01182.pdf.
- [C17] Khac-Hoang Ngo, A. Lancho, G. Durisi, and A. Graell i Amat, "Massive uncoordinated access with random user activity," in *IEEE International Symposium on Information Theory (ISIT)*, Melbourne, Victoria, Australia, 2021, pp. 3014–3019. [Online]. Available: https://arxiv.org/abs/2103.09721.
- [C18] Khac-Hoang Ngo, N. T. Nguyen, T. Q. Dinh, T.-M. Hoang, and M. Juntti, "Low-latency and secure computation offloading assisted by hybrid relay-reflecting intelligent surface," in *International Conference on Advanced Technologies for Communications (ATC)*, Best Paper Award, Hanoi, Vietnam, Oct. 2021, pp. 306–311. [Online]. Available: https://arxiv.org/pdf/2109.01335.pdf.
- [C19] Khac-Hoang Ngo and S. Yang, "A generalized Gaussian model for wireless communications," in *IEEE International Symposium on Information Theory (ISIT)*, Melbourne, Victoria, Australia, 2021, pp. 3237–3242. [Online]. Available: https://research.chalmers.se/en/publication/522211.
- [C20] Khac-Hoang Ngo and S. Yang, "A Riemannian metric for non-coherent constellation design and its application to multiple access channel," in 25th International ITG Workshop on Smart Antennas, French Riviera, France, Nov. 2021. [Online]. Available: https://centralesupelec.hal.science/hal-03420084v1/document.
- [C21] Khac-Hoang Ngo, S. Yang, and M. Guillaud, "The optimal DoF for the noncoherent MIMO channel with generic block fading," in 2020 IEEE Information Theory Workshop (ITW), Riva del Garda, Italy, Apr. 2021. [Online]. Available: https://arxiv.org/pdf/ 2009.11556.pdf.
- [C22] Khac-Hoang Ngo, S. Yang, M. Guillaud, and A. Decurninge, "Noncoherent MIMO multiple-access channels: A joint constellation design," in 2020 IEEE Information Theory Workshop (ITW), Riva del Garda, Italy, Apr. 2021. [Online]. Available: https://centralesupelec.hal.science/hal-03420089/file/ITW2020_MAC_constellation.pdf.
- [C23] Khac-Hoang Ngo, F. Zhang, S. Yang, and A. Nosratinia, "Two-user MIMO broadcast channel with transmit correlation diversity: Achievable rate regions," in *IEEE Information Theory Workshop (ITW)*, Kanazawa, Japan, Nov. 2021. [Online]. Available: https://centralesupelec.hal.science/hal-03420090/document.
- [C24] Khac-Hoang Ngo, M. Guillaud, A. Decurninge, S. Yang, S. Sarkar, and P. Schniter, "Non-coherent multi-user detection based on expectation propagation," in 53rd Asilomar Conference on Signals, Systems, and Computers, CA, USA, Nov. 2019, pp. 2092–2096. [Online]. Available: https://centralesupelec.hal.science/hal-02556927/document.
- [C25] Khac-Hoang Ngo, A. Decurninge, M. Guillaud, and S. Yang, "A multiple access scheme for non-coherent SIMO communications," in 52nd Asilomar Conference on Signals, Systems, and Computers, CA, USA, Oct. 2018, pp. 1846–1850. [Online]. Available: https://centralesupelec.hal.science/hal-03420091v1/preview/Asilomar2018.pdf.

- [C26] Khac-Hoang Ngo, S. Yang, and M. Guillaud, "The optimal DoF region for the twouser non-coherent SIMO multiple-access channel," in *IEEE Information Theory Workshop* (*ITW*), Guangzhou, China, Nov. 2018. [Online]. Available: https://arxiv.org/pdf/ 1806.04102.pdf.
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