

Curriculum Vitae

Khac-Hoang Ngo

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Name: Khac-Hoang Ngo

Position: Assistant Professor

Affiliation: Department of Electrical Engineering, Linköping University, Sweden

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EDUCATION

- **Ph.D. in Wireless Communications** 2020
CentraleSupélec, Paris-Saclay University, France
Thesis: Noncoherent Wireless Communications: Fundamental Limits and System 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
GPA: 17.35/20 *Class rank:* 1/23
- **B.E. in Electronics and Telecommunications** 2014
Univ. of Engineering and Technology (UET), Vietnam National University Hanoi (VNU)
Thesis: Software-Defined-Radio Implementation of OFDM-based Physical Layer Network Coding
Advisors: Assoc. Prof. Nguyen Linh Trung, Assoc. Prof. Nguyen Quoc Tuan
GPA: 3.75/4.0 *Class rank:* 1/68

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
National University of Singapore

SELECTED HONORS AND AWARDS

- **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 Skłodowska-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

Participated* or took lead** in proposal writing

- ***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 Skłodowska-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, information freshness, integrated sensing and communication, data privacy, MIMO, noncoherent communications, coded caching, network coding
- **Google scholar profile:**
<https://scholar.google.com/citations?user=RjcW6WwAAAAJ&hl=en>
Number of citations: **472**, h-index: **12**, i10-index: **14**
- **List of publications** at the end of the CV

PEDAGOGICAL TRAINING

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

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, 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

- Amandus Reimer, *The privacy-security trade-off in practical federated learning*, Chalmers University of Technology, Sweden, to start in 03/2025
- Marcus Lassila (Ph.D. student), *Theory for the privacy-security trade-off in federated learning*, Chalmers University of Technology, Sweden, started in 09/2023

Master Theses/Projects

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

- **Member**
 - IEEE, since 2017
 - ACM, since 2022
 - 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 Letter
 - IEEE Wireless Communications Letter
 - IEEE Vehicular Technology Magazine
 - IET Electronics Letter
 - Elsevier Pervasive Mobile Computing
 - Physical Communication
 - Entropy, MDPI
- **Referee 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
- International Symposium on Topics in Coding (ISTC): 2018
- Asilomar Conf. on Signals, Systems, and Computers: 2021, 2022, 2023, 2024
- 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 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**
 - *Session chair*, IEEE GLOBECOM, Kuala Lumpur, Malaysia, 2023
 - *Communication track chair*, Int. Conf. Advanced 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
- **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:**

- 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 (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](#).

Vietnamese (native), English (fluent), French (elementary), Swedish (beginner)

LIST OF PUBLICATIONS

Preprints

- [Pre1] **Khac-Hoang Ngo**, G. Durisi, A. Munari, F. Lázaro, and A. Graell i Amat, “Timely status updating in slotted ALOHA networks with energy harvesting,” *under revision to IEEE Transactions on Communications*, 2024. [Online]. Available: <https://arxiv.org/pdf/2404.19552>.
- [Pre2] D. P. Krishnan, K. Okumus, **Khac-Hoang Ngo**, and G. Durisi, *An achievability bound for type-based unsourced multiple access*, 2024. [Online]. Available: <https://gdurisi.github.io/files/2025/krishnan25-01a.pdf>.
- [Pre3] K. Okumus, **Khac-Hoang Ngo**, G. Durisi, and E. G. Ström, *Type-based unsourced multiple access over fading channels with cell-free massive MIMO*, 2024. [Online]. Available: <https://gdurisi.github.io/files/2025/okumus25-01a.pdf>.

Book Chapters

- [B1] L.-T. Nguyen, T.-T.-Q. Tran, **Khac-Hoang Ngo**, and V.-L. Nguyen, “Cognitive physical-layer network coding,” in *Two-Way Relay Communications: Theory and Implementation*, L.-T. Nguyen, N.-Q.-B. Vo, and T.-T.-Q. Tran, Eds., Language: Vietnamese, under review, Hanoi, Vietnam: VNU Publishing House, 2024, ch. 8.
- [B2] V.-L. Nguyen, **Khac-Hoang Ngo**, T.-T.-Q. Tran, V.-H. Le, and L.-T. Nguyen, “Physical-layer network coding for SDR-based multimedia transmissions,” in *Two-Way Relay Communications: Theory and Implementation*, L.-T. Nguyen, N.-Q.-B. Vo, and T.-T.-Q. Tran, Eds., Language: Vietnamese, under review, Hanoi, Vietnam: VNU Publishing House, 2024, ch. 10.
- [B3] T.-T.-Q. Tran, **Khac-Hoang Ngo**, V.-L. Nguyen, H.-S. Do, and L.-T. Nguyen, “Setting up an SDR testbed for OFDM systems,” in *Two-Way Relay Communications: Theory and Implementation*, L.-T. Nguyen, N.-Q.-B. Vo, and T.-T.-Q. Tran, Eds., Language: Vietnamese, under review, Hanoi, Vietnam: VNU Publishing House, 2024, ch. 9.
- [B4] T.-T.-Q. Tran, V.-L. Nguyen, **Khac-Hoang Ngo**, L.-T. Nguyen, Q.-T. Nguyen, V.-H. Le, N.-Q.-B. Vo, and X.-N. Tran, “Implementation of cognitive physical-layer network coding based on OFDM/VFDM,” in *Two-Way Relay Communications: Theory and Implementation*, L.-T. Nguyen, N.-Q.-B. Vo, and T.-T.-Q. Tran, Eds., Language: Vietnamese, under review, Hanoi, Vietnam: VNU Publishing House, 2024, ch. 11.

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. Graell i Amat, P. Popovski, A. E. Kalor, and B. Soret, “Unsources 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>.
- [J2] **Khac-Hoang Ngo**, A. Lancho, G. Durisi, and A. Graell i Amat, “Unsources 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>.
- [J3] 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.
- [J4] **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>.
- [J5] 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>.
- [J6] 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>.
- [J7] **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>.
- [J8] **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>.
- [J9] 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>.
- [J10] **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] **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>.
- [C2] **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>.
- [C3] **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>.
- [C4] **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>.
- [C5] 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.
- [C6] **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>.
- [C7] **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>.
- [C8] 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>.
- [C9] **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.
- [C10] **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>.
- [C11] **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>.

- [C12] **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>.
- [C13] **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>.
- [C14] **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>.
- [C15] **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>.
- [C16] **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.
- [C17] **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>.
- [C18] **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>.
- [C19] **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>.
- [C20] **Khac-Hoang Ngo**, S. Yang, and M. Guillaud, “The optimal DoF region for the two-user 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>.
- [C21] A. Ghorbel, **Khac-Hoang Ngo**, R. Combes, M. Kobayashi, and S. Yang, “Opportunistic content delivery in fading broadcast channels,” in *IEEE Global Communications Conference (GLOBECOM)*, Singapore, Dec. 2017. [Online]. Available: <https://arxiv.org/pdf/1702.02179.pdf>.
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