Giboulot Quentin

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Education

2019–2022 **Ph.D**, *University of Technology of Troyes*, France
Subject: Security and System Optimization
Thesis: Statistical steganography based on a sensor noise model using the processing pipeline

2014–2022 **Master's Degree**, *Univeristy of Technology of Troyes*, France
Major: Network and telecommunication systems engineering
Specialty: Security of Information Systems

Research Experience

2022–current **Full-time researcher**, *Czech Technical University*, Prague, Czech Republic

2019–2022 **Research Assistant**, *University of Technology of Troyes*, Troyes, France

2018–2019 **Short-Term Scholar**, *Binghamton University*, CBinghamton, NY, USA

2017 **Research Intern**, *University of Technology of Troyes*, Troyes, France

Research Interest

Information security, Steganography, Steganalysis

Signal processing, Hypothesis Testing

Game Theory

Teaching

University of Technology of Troyes

MS11: Statistical methods for measurements *Fall 2020*

NF04: Algoritmic *Spring 2021*

Publications

Journal Papers

J1 Giboulot, Quentin, and Jessica Fridrich. **"Payload scaling for adaptive steganography: An empirical study."** IEEE Signal Processing Letters 26.9 (2019): 1339-1343.

J2 Giboulot, Quentin, Rémi Cogranne, Dirk Borghys, and Patrick Bas. **"Effects and solutions of cover-source mismatch in image steganalysis."** Signal Processing: Image Communication 86 (2020): 115888.

J3 Giboulot, Quentin, Rémi Cogranne, and Patrick Bas. **"Detectability-based JPEG steganography modeling the processing pipeline: the noise-content trade-off."** IEEE Transactions on Information Forensics and Security 16 (2021): 2202-2217.

J4 Cogranne, Rémi, Quentin Giboulot, and Patrick Bas. **"Efficient Steganography in JPEG Images by Minimizing Performance of Optimal Detector."** IEEE Transactions on Information Forensics and Security 17 (2021): 1328-1343.

J5 Giboulot, Quentin, Patrick Bas, and Rémi Cogranne. **"Multivariate Side-Informed Gaussian Embedding Minimizing Statistical Detectability."** IEEE Transactions on Information Forensics and Security 17 (2022): 1841-1854.

Conference papers

C1 Giboulot, Quentin, Rémi Cogranne, and Patrick Bas. **"Steganalysis into the Wild: How to Define a Source?."** In IST Electronic Imaging, Media Watermarking, Security, and Forensics 2018. 2018.

C2 Cogranne, Rémi, Quentin Giboulot, and Patrick Bas. **"The ALASKA steganalysis challenge: A first step towards steganalysis."** In Proceedings of the ACM Workshop on Information Hiding and Multimedia Security, pp. 125-137. 2019.

C3 Yousfi, Yassine, Jan Butora, Jessica Fridrich, and Quentin Giboulot. **"Breaking ALASKA: Color separation for steganalysis in JPEG domain."** In Proceedings of the ACM Workshop on Information Hiding and Multimedia Security, pp. 138-149. 2019.

C4 Giboulot, Quentin, Rémi Cogranne, and Patrick Bas. **"JPEG steganography with side information from the processing pipeline."** In ICASSP 2020-2020 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pp. 2767-2771. IEEE, 2020.

C5 Cogranne, Rémi, Quentin Giboulot, and Patrick Bas. **"Steganography by minimizing statistical detectability: The cases of JPEG and color images."** In Proceedings of the 2020 ACM Workshop on Information Hiding and Multimedia Security, pp. 161-167. 2020.

C6 Giboulot, Quentin, Patrick Bas, and Rémi Cogranne. **"Synchronization minimizing statistical detectability for side-informed JPEG steganography."** In 2020 IEEE International Workshop on Information Forensics and Security (WIFS), pp. 1-6. IEEE, 2020.

C7 Cogranne, Rémi, Quentin Giboulot, and Patrick Bas. **"ALASKA 2: Challenging academic research on steganalysis with realistic images."** In 2020 IEEE International Workshop on Information Forensics and Security (WIFS), pp. 1-5. IEEE, 2020.

C8 Quentin, Giboulot, Bas Patrick, Cogranne Rémi, and Borghys Dirk. **"The Cover Source Mismatch Problem in Deep-Learning Steganalysis."** In 2022 30th European Signal Processing Conference (EUSIPCO), pp. 1032-1036. IEEE, 2022.