

UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II

**DOTTORATO DI RICERCA / PhD PROGRAM IN
INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING**

Seminar announcement

Tuesday 29 April 2025, Time: 16:30 - 17:30

Sala Riunioni (ex-Softel), Floor I, Building 3, DIETI - Via Claudio, 21 - NAPOLI



Dr. Erwin Quiring

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On the Security of Semantic Watermarking to Detect AI-Generated Content

Abstract: Integrating watermarking into the generation process of latent diffusion models (LDMs) simplifies detection and attribution of generated content. Semantic watermarks, such as Tree-Rings and Gaussian Shading, represent a novel class of watermarking techniques that

are easy to implement and highly robust against various perturbations. In my talk, we will shortly revisit these watermarking techniques and learn more about the robustness of these novel watermarks against targeted forgery and removal attacks.

Lecturer short bio: *Erwin Quiring is a senior researcher at the Ruhr University Bochum, Germany, and ICSI @ UC Berkeley. He received a Ph.D. in computer science from TU Braunschweig and worked as postdoctoral researcher at ICSI @ UC Berkeley in the last two years. His research vision is to foster the trustworthiness of AI. In particular, he works on the reliability, efficiency, and security of AI. One of this main research areas is the detection of AI-generated content. Contact him at erwin.quiring@rub.de*

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