



UNIVERSITÀ  
CATTOLICA  
del Sacro Cuore

**transcrime**  
Joint Research Centre on Transnational Crime

**TNO** innovation  
for life

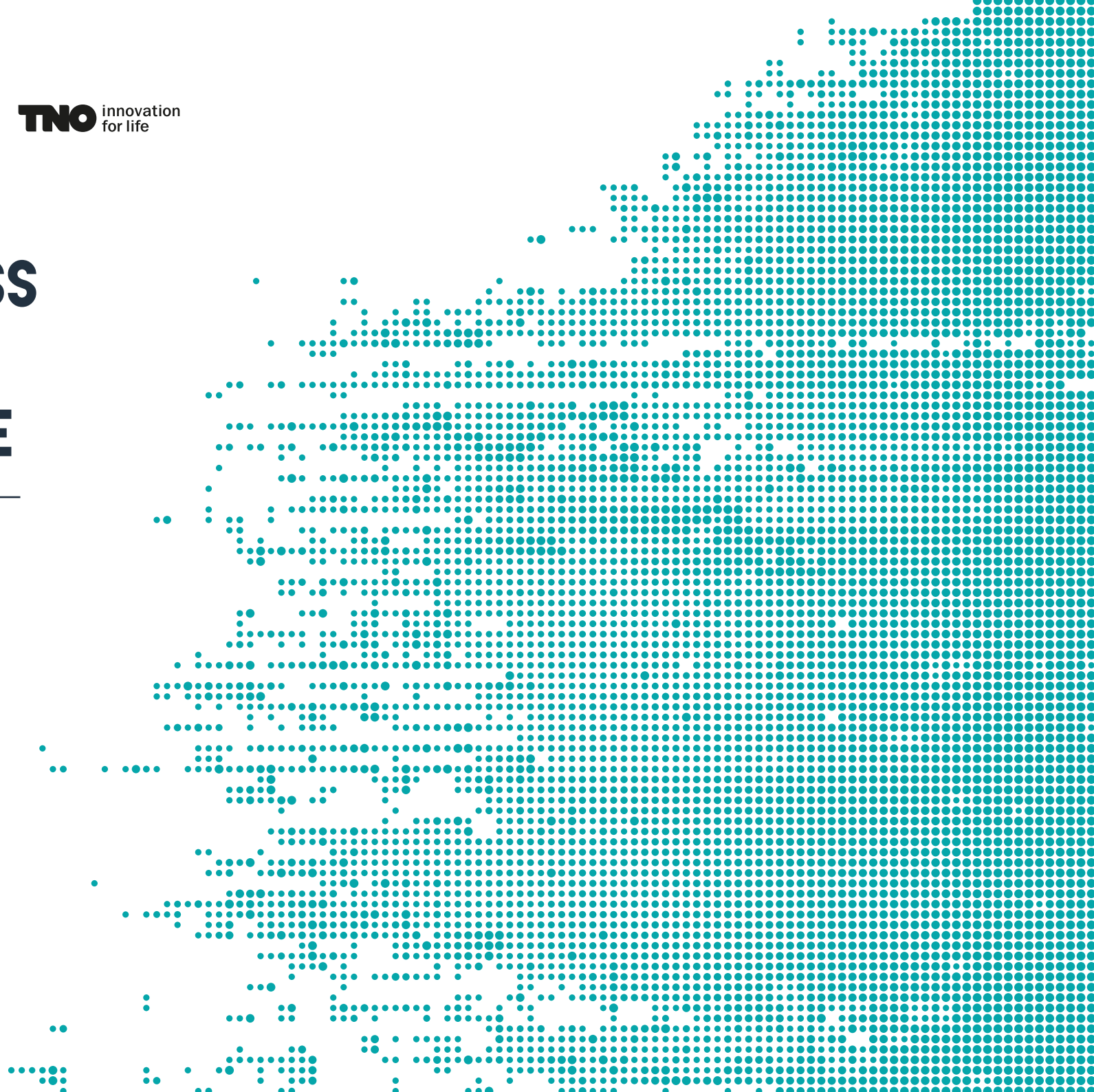
# THE BUSINESS MODEL OF CYBERCRIME

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**Summer school**

Milan, 9 - 12 July 2019

**3<sup>rd</sup> Edition**



# PARTNERS

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## TRANSCRIME

Transcrime is the Joint research center of the Università Cattolica del Sacro Cuore, the Alma Mater Studiorum Università di Bologna and the Università degli Studi di Perugia. Transcrime employs an integrated approach and performs applied research to:

- Analysis of criminal phenomena;
- Evaluation of crime prevention policies;
- Analysis and identification of criminogenic opportunities in legislation (crime proofing analysis);
- Development of risk assessment models and crime prevention strategies for public and private actors.

Transcrime is a key supporting body of the education activities provided by the Università Cattolica del Sacro Cuore di Milano. In particular, the center coordinates: the Master's degree in Security Policy (Poli.Si) within the framework of the Master's program in Political and Social Sciences and the International Ph.D. in Criminology.

[www.transcrime.it](http://www.transcrime.it)

## TNO

TNO, the Netherlands Organisation for applied scientific research, was founded by law in 1932 to enable business and government to apply knowledge. It is an independent research organisation focused on transitions or changes in five social themes: industry, healthy living, defence and security, and energy.

TNO Cyber Security and Resilience unit strives to come up with game changing solutions that focus on cybercrime prevention, detection and recovery. It has established a special Cyber Security Lab, which provides technical facilities to promising cyber security innovation projects. In the Cyber Security Lab TNO take up current challenges in cyber security using a combined approach that encompasses people, processes, organization and control. TNO research is focused on detection of cyber security incidents, improvement of organizations' cyber resilience and threat intelligence.

[www.tno.nl](http://www.tno.nl)

# INTRODUCTION

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Over the last years, cyber threats have taken place with the intention of generating financial profits for the cybercriminals involved. This business model of cybercrime is based on a value chain of cybercrime components, from malware development or distribution to cash-out solutions. Offers of these components on anonymous online markets, can be seen as a form of cybercrime-as-a-service. The proliferation of these services potentially allows 'customers' to organise online crime, like financial fraud, regardless of their skills and technical knowledge. Illicit business on the dark net comprises of a variety of marketplaces, where the tools necessary to launch cyberattacks are sold and bought. This growing "as-a-service" market

attracts not only wannabe hackers, but also traditional criminals. Anonymizing peer-to-peer networks and cryptocurrencies have become the enabling tools of this new business model, as the markets where demand and supply in cybercrime components meet, build on the TOR-protocol for hosting their anonymous markets and lean on cryptocurrencies to support an alternative payment channel. Based on its characteristics of non-regulation and its potential anonymity, the bitcoin is the currency of choice for cybercriminals and dark net sellers.

The current Summer School aims at providing professionals with understanding of the business model of cybercrime and the online criminal finances, in particular.

It focuses on the actors behind cybercrime, what types of business models they have and how business transactions take place on the darknet. This Summer School provides the participants an opportunity to meet and become a part of like-minded researchers of cyberspace, grow their network and identify opportunities for collaboration.

**The summer school will be held in English.**



# COURSE LEADERS

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→ **ERNESTO SAVONA**

Director of Transcrime and Professor of Criminology at the Università Cattolica del Sacro Cuore  
Editor in Chief of the European Journal on Criminal Policy and Research (Springer)

→ **ROLF VAN WEGBERG**

Research scientist at TNO, involved in research on financial cybercrime and underground markets.  
Ph.D. Candidate at TU Delft

→ **THIJMEN VERBURGH**

Cybercrime researcher at TNO.  
Expert in data mining, knowledge discovery and dark web dynamics

# TARGET GROUP

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→ **PROFESSIONALS**

The Summer School would like to attract professionals from all over Europe who work in those areas where anti-money laundering, crime prevention, and cybersecurity are arising. It aims at: a) fostering their knowledge of these phenomena; b) providing them the necessary 'tools' to contrast them.

→ **STUDENTS**

Because of the multidisciplinary of the topic, students (Bachelor's, Master's, Ph.D.) from the following fields will be welcome: Criminology, Sociology, Law, Information Security, Computer Science.

# DAILY PROGRAMME



2019	10.00 - 10.15	10.15 - 11.30	11.30 - 11.45	11.45 - 13.30	13.30 - 14.30	14.30 - 16.00	16.00 - 16.45	16.45 - 17.45	17.45 - 18.00	18.00
<b>9 JULY</b> <b>Experiencing Cybercrime</b>	Introduction to the summer school and getting to know the participants	Cybercrime business model <i>Lectors: Rolf van Wegberg Thijmen Verburgh</i>	Break	Dark markets <i>Lectors: Rolf van Wegberg Thijmen Verburgh</i>	Lunch Break	Organised Crime <i>Lector: Mariya Karayotova</i>	Break	GAME: Trading on Underground Markets; Level 1	Wrap up the day	Aperitivo
<b>10 JULY</b> <b>Facilitating Technologies</b>	Introduction to TOR <i>Lectors: Rolf van Wegberg Thijmen Verburgh</i>		Break	Cryptocurrencies: A first look at Bitcoin <i>Lectors: Rolf van Wegberg Thijmen Verburgh</i>	Lunch Break	Cryptocurrencies: Transactions & Wallets <i>Lectors: Rolf van Wegberg Thijmen Verburgh</i>	Break	GAME: Trading on Underground Markets; Level 2	Wrap up the day	
<b>11 JULY</b> <b>Cybercriminal Incentives</b>	Criminal infiltration in the legal economy <i>Lector: Michele Riccardi</i>		Break	Money laundering with cryptocurrencies <i>Lector: Rolf van Wegberg Thijmen Verburgh</i>	Lunch Break	Trading on Dark Markets: Crimeware <i>Lectors: Rolf van Wegberg Thijmen Verburgh</i>	Break	GAME: Trading on Underground Markets; Level 3	Wrap up the day	Social Dinner
<b>12 JULY</b> <b>Making a cybercrime business</b>	Build your cybercrime business model! <i>Lectors: Rolf van Wegberg Thijmen Verburgh</i>		Break	Meeting a practitioner. Examples of data breaches and investigations Part 1 <i>Lector: Raoul Chiesa</i>	Lunch Break	Meeting a practitioner. Examples of data breaches and investigations Part 2 <i>Lector: Selene Giupponi</i>	Break	Recap of the summer school, game results, final test, and certification	Wrap up the day	

\*9 July: starting at 9.30 for Registration, Welcome and Introduction by Prof. Savona

# LECTURERS

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## → **RAOUL CHIESA**

Founding Partner and President of Security Brokers SCpA, Founding Member of the ECSO (European Cyber Security Organization), Deputy Officer engaging the European Commission. Lecturer in Cyber Security at several universities, NATO and INTERPOL

## → **SELENE GIUPPONI**

Founding Partner of Security Broker SCpA, Member of the ITU Roaster of Experts (UNFCCC), Member of the HTCC – High Tech Crime Consortium, Cyber Expert for the project ENCYSEC and certified CIFI (Certified International Information System Forensics Investigator)

## → **MARIYA KARAYOTOVA**

Senior Consultant at PMG Analytics, Analyst at the Security Program of the Center for the Study of Democracy in Bulgaria (from October 2013 until October 2015), Researcher at Transcrime since October 2015. Coordinator of the Summer School on Cybercrime at Transcrime in 2017, 2018

## → **MICHELE RICCARDI**

Senior researcher in the field of organized and financial crime at Transcrime since 2006 and adjunct professor of Business Economics at the Faculty of Political and Social Sciences of the Università Cattolica del Sacro Cuore in Milan

## → **ERNESTO SAVONA**

Director of Transcrime and Professor of Criminology at the Università Cattolica del Sacro Cuore  
Editor in Chief of the European Journal on Criminal Policy and Research (Springer)

## → **THIJMEN VERBURGH**

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Ph.D. Candidate at TU Delft

# APPLICATION

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Participants wishing to apply should send the application form with their CV or resume attached by email to [cybercrime.summerschool@unicatt.it](mailto:cybercrime.summerschool@unicatt.it).

Applications will be approved on a rolling basis. The admission office shall communicate their decision within few days by email.

Admitted students will have to fill in the registration online (the link will be communicated by mail) and pay the fee within 10 days from the admission notice through credit card (directly on the webpage) or through wire transfer to the following bank account:

Università Cattolica del Sacro Cuore  
Banca Intesa Sanpaolo,  
IBAN  
IT07W0306903390211610000191,  
specifying the full name of the participant and the title of the Summer School in the payment reference.

## **Postgraduate Education Research and Partnership Office:**

Università Cattolica del Sacro Cuore  
Address: Via Carducci, 30  
20123 Milano  
Ph: 0039 02 7234 5701  
E-mail:  
[cybercrime.summerschool@unicatt.it](mailto:cybercrime.summerschool@unicatt.it)

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**Application deadline: 3<sup>rd</sup> June 2019**





# FEE INFOS

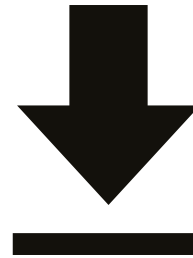
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Participants will be asked to pay a registration fee of:

- Professionals and trainees:  
**427 EUR (VAT included)**
- Bachelors, Post Graduate, PhD  
and Master students of:

Università Cattolica:  
**305 EUR (VAT included)**  
Others Universities:  
**305 EUR (VAT included)**

The fee will cover the lectures, farewell aperitivo and course materials but participants must cover their travel and accommodation expenses.



**CLICK [HERE](#) TO REGISTER**

For further information on the summer school and the application process you can contact Giacomo Salvaneli at:  
**[cybercrime.summerschool@unicatt.it](mailto:cybercrime.summerschool@unicatt.it)**

