

EU Fin-Tech Horizon2020

# REG-TECH WORKSHOP VI

## RISK IN BLOCKCHAIN AND CRYPTOCURRENCIES

### ONLINE MEETING

MARCH 24, 2021 | H 14.00-17.00 (CET - UTC/GMT+1)

APRIL 1st, 2021 | H 14.00-17.00 (CET - UTC/GMT+2)

**UNIVERSITE PANTHEON-SORBONNE**  
PARIS, FRANCE

## DEVELOPING ALGORITHMS FOR FINTECH RISK MANAGEMENT

This RegTech workshop is part of the Project 'FIN-TECH Horizon 2020' funded by the EU. It covers aspects of Fintech Risk Management including a coding session in order to explore the opportunities and limitations offered by blockchain technologies applications to finance, specifically for Initial Coin Offerings (ICO) and crypto-assets.

During this RegTech workshops participants will learn how to apply data science in the development of predictive models for risk evaluation related to blockchain technologies applications and improve their coding and analytics skills.

## REGISTRATION

[Register for free here](#)

Visit us at  
[www.fintech-ho2020.eu](http://www.fintech-ho2020.eu)

## SKILLS REQUIRED FOR THE CODING SESSION

Some background in  
quantitative modeling,  
machine learning and  
risk analysis

Some programming  
skills in R and /or  
python

\*\*\* This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 825215 (topic ICT-35-2018, Type of action: CSA). The content reflects only the author's view and the Commission is not responsible for any use that may be made of the information it contains.\*\*\*

# THE OTHER REG-TECH WORKSHOPS

1

**Milan by Modefinance**

Big Data Analytics  
MARCH 29 2019

[Agenda](#), [Flyer](#)

2

**Frankfurt by Firamis**

Big Data Analytics  
JUNE 28 2019

3

**Winterthur by ZHAW**

AI in Finance  
SEPTEMBER 4 2019

4

**Vienna by WU Vienna  
University of Economics and  
Business**

AI in Finance  
FEBRUARY 26 2020

5

**Madrid by Universidad  
Complutense de Madrid**

Blockchain  
OCTOBER 23 2020  
Online meeting

6

**Paris by Université Paris 1  
Panthéon-Sorbonne**

Blockchain  
NOVEMBER 5 2020  
MARCH 24 2021  
APRIL 1 2021

[All agendas of the past Regtech workshops here](#)

# INVITATION FOR BANKS AND INSURERS

New financial technologies as Big Data Analytics, AI and Blockchain are used in innovation departments at banks/insurers and at Fintech startups.

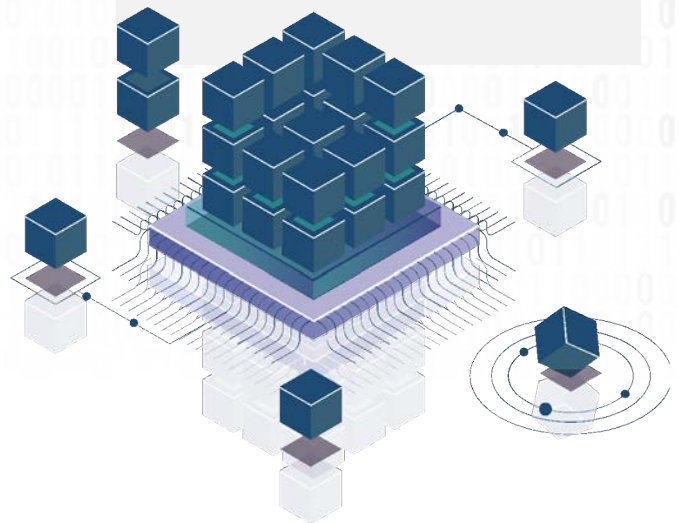
YOU ARE INVITED TO BECOME AN EVALUATOR OF THE SERIES OF REG-TECH SESSIONS AND SHAPE THE LANDSCAPE OF RESEARCH SANDBOXING IN THE EU.

**Within 2 years 6 RegTech sessions take place across Europe, covering topics such as:**

- Artificial Intelligence
- Market risk management
- Credit risk management
- Operational risk management
- Creditworthiness
- Assessment
- Blockchain technologies
- Innovative payments
- Peer2Peer lending
- Robo Advisory
- Big Data Analytics

Contact us if you are interested in becoming an evaluating bank that participates in the **RegTech** sessions and gives feedback about the workshops, models and use cases. Contact us at: [info@fintech-ho2020.eu](mailto:info@fintech-ho2020.eu)

Your benefit: get to know the latest trends / developments in RegTech and FinTech Risk Management and engage as a thought leader on EU level.





# SPEAKERS

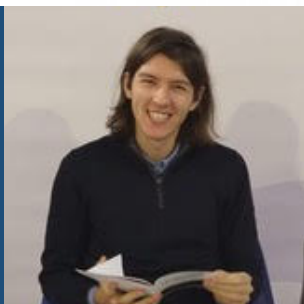


**LUIS LORENZO ALVAREZ** is a Telecom Engineer working for a TELCO in the 5G RAN Network but enjoys studying finance engineering for a long time ago. He studied for a bachelor's degree in Economics with a major in Econometrics in 2012 in UNED University, which he completed with a master's degree along 2015-16 in Mathematical Engineering, Faculty of Mathematics, and he completed the Advanced Analytics master's degree in Strategy Marketing in 2017 in the Centre for Advanced Management Studies both in the Complutense University. Currently, he is enrolled in the Doctoral Program for the Faculty of Statistical Studies of Complutense University as well since 2019. His investigation focuses on clustering and predictive techniques applied to cryptocurrency markets.



**WOLFGANG KARL HÄRDLE** attained his Dr. rer. nat. in Mathematics at Universität Heidelberg in 1982 and in 1988 his habilitation at Universität Bonn. He is Ladislaus von Bortkiewicz Professor of Statistics at Humboldt-Universität zu Berlin and the director of the Sino German Graduate School (洪堡大学 + 厦门大学) IRTG1792 on "High dimensional non stationary time series analysis". He also serves as head of the joint BRC Blockchain Research Center (with U Zürich).

His research focuses on data sciences, dimension reduction and quantitative finance. He has published over 30 books and more than 300 papers in top statistical, econometrics and finance journals. He has professional experience in financial engineering, smart data analytics, machine learning and cryptocurrency markets. He has created a financial risk meter, FRM [hu.berlin/firm](http://hu.berlin/firm), a cryptocurrency index, CRIX [thecrix.de](http://thecrix.de). and organises regularly [blockchainnights.com](http://blockchainnights.com)



**THOMAS LEACH** PhD student at the University of Pavia in the Department of Engineering, he holds a Master in Macroeconomic Policy and Financial Markets from the Barcelona Graduate School of Economics. Prior to starting the PhD he worked on blockchain and digital payments at the European Central Bank and R3. His research is primarily focused on FinTech, in particular, digital money and central bank digital currencies, as well as cyber and operational risk.

# SPEAKERS



**EMANUELA RAFFINETTI** is currently Research Fellow in Statistics at the Department of Economics and Management of the University of Pavia. She was Assistant Professor of Statistics at the Department of Economics, Management and Quantitative Methods of the University of Milan (Italy).

After her Degree in Business Economics (Finance) at University of Pavia (Italy) in 2005, in 2005/2006 she attended the Second Level University Master in "Methods for Management of Complex Systems" at the Institute for Advanced Study of Pavia. She then got a scholarship at the PhD program in Statistics at the Bocconi University of Milan (Italy) and in 2011 she obtained her PhD degree.

Her research activity is mainly focused on: Explainable Artificial Intelligence (XAI) methods; Machine Learning model validation methods; assessment of operational and cyber risks; dependence analysis; dependence, concordance and discordance measures; ordinal variable treatment and models for ordinal variables; inferential issues when dealing with dataset of high dimensions; sub-sampling methods; inequality measures in income distributions; assessment of quality and customer satisfaction; assessment of the university and educational systems.



**DANIEL TRAIAN PELE** graduated Mathematics (2000) and got his Master in Stochastic Processes and Theoretical Statistics at the University of Bucharest (2002). He got his Ph.D. in Statistics (2007) and habilitation in Statistics (2019) at the Bucharest University of Economic Studies. He currently serves as a Professor at the Department of Statistics and Econometrics, the Bucharest University of Economic Studies, Romania, teaching Statistics of Financial Markets and Time Series. The corresponding research profile is that of a data scientist, focused on statistical modelling of financial markets.

He was a postdoctoral researcher at ICMA Centre, Reading University, United Kingdom (2011) and a Guest Researcher at Research Data Center from Department of Statistics, Humboldt University from Berlin (2014) and International Research Training Group 1792 "High Dimensional Nonstationary Time Series", Humboldt University from Berlin (2018, 2019). He is the co-founder of SAS Centre of Excellence in the Bucharest University of Economic Studies (2009), aiming to use SAS as a platform for analytics with applications in economy and finance. He is also a World Bank and European Investment Bank consultant in Romania and he taught courses of Statistics, Econometrics and SAS for the employees of the Romanian National Bank (BNR), National Statistical Institute (INS) and other financial institutions.

# SPEAKERS & ORGANIZERS



**PAOLO GIUDICI** Professor of Statistics at the University of Pavia. Lecturer of Statistics, Economic Statistics, Experimental Statistics, Data mining, Data science, Financial risk management.

Author of several scientific publications. The publications appeared in: Journal of the Royal Statistical Society, Journal of Business and Economics Statistics, Biometrika, Computational Statistics and data analysis, Journal of Computational and graphical statistics, Expert systems with applications, Machine Learning, Neurocomputing, Journal of the Operational Research Society, Journal of Banking and Finance, Journal of Financial Stability.

Coordinator of 11 funded scientific projects, among which the European Horizon2020 project "FIN-TECH: Financial supervision and Technological compliance" (2019-2020) and the European VI programme project on "Multi industry semantic based business intelligence" (2006-2010).

Chief Editor of "Artificial Intelligence in Finance", Frontiers. Associate Editor of "Digital Finance", Springer; and of "Risks", MDPI. Previously AE of ASMBI and SMA. Member of the National committee for the career progression of statistics professors (ASN 2018-2020).



**ANCA MIRELA TOMA** is a Research fellow at the University of Pavia, Department of Economics and Management. She is also a PhD fellow in Applied Economics and Management at the University of Bergamo. Currently, she works on textual and statistical analysis models applied to fintech risk management.



**CHRISTOPHE HENOT** is Associate Professor of Finance at the Sorbonne School of Management of the University of Paris 1 Panthéon-Sorbonne (France).

After obtaining his Master of Research in Finance at the University of Paris 1 in 1997, he obtained a research grant for his PhD on hybrid securities (convertible bonds) in 2001.

His research activity initially focused on derivatives has evolved from 2013 to focus on blockchain protocols, uses and risks of this recent technology, smart-contracts, DApp, DAO and their financial applications. Co-founder and investor in companies pioneering the use of blockchain protocols, he is also a member of ADAN (French lobbying association for the digital assets sector).



# ABOUT THE EU GRANT

FinTech (Financial Technology) means "technology-enabled financial innovation." There is a strong need to improve the competitiveness of European FinTech, creating a common regulatory approach across all countries. This can help encourage innovations in banks and in B2B FinTech companies, in the application of big data, artificial intelligence and blockchain technologies, while authorities and researchers assess their risks.

Europe has a broad mosaic of regulatory landscapes and technological innovations in finance. Regulators must move quickly and make important decisions about emerging scientific and business opportunities, without stifling their economic potential.

The Fin-Tech project, under the EU's Horizon2020 funding scheme, aims to create a European FinTech risk management hub. To this end, it will develop ready-to-use FinTech risk management models which will be dynamically updated and aligned with best research and practice.

The project includes training to national regulators (suptech) and to European fintech hubs (regtech) by a group of independent experts that have leading research expertise in the measurement of the risks that arise from the application of big data, artificial intelligence and blockchain technologies and, specifically, of those arising from innovative payments, peer to peer lending and financial robo-advisory.

The project has started on January 1st, 2019 and will last until June 2021. The activities of the project include 6 research workshops with international regulators, 48 hours of suptech workshops for each national supervisor and 6 regtech workshops for Fintechs and innovative banks.

Financial institutions will be the ultimate validator of the proposed FinTech risk management solutions, as the project will involve the risk management functions of a selected group of banks in writing a final assessment of the project's output (FinTech risk management models).

This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 825215



The Pavia University team (above); the project partners (below)



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or contact as at  
[info@fintech-ho2020.eu](mailto:info@fintech-ho2020.eu)

24<sup>th</sup> March & 1<sup>st</sup> April 2021

Web meeting

Organized by

Université Paris 1 Panthéon-Sorbonne

### Risk Management and Blockchain Applications

#### 24<sup>th</sup> March 2021

14:00 – 14.10	Welcome and Introduction to RegTech event	Christophe Henot
14.10 – 14.40	<b>Use Case V:</b> Analysis of the cryptocurrency market applying different prototype-based clustering techniques	Luis Lorenzo Alvarez
14.40 – 15.10	<b>Use Case:</b> Hedging CRIX with BTC futures	Wolfgang Karl Härdle
15.10 – 15.40	<b>Use Case II:</b> A statistical classification of cryptocurrencies.	Daniel Traian Pele
15:40 – 16.00	Q&A on Use Cases	

#### 1<sup>st</sup> April 2021

14:00	Opening	Christophe Henot
14.00 – 14.30	<b>Use Case VI:</b> Cyber risk management with rank-based models and explainable AI	Paolo Giudici & Emanuela Raffinetti
14.30 – 15.00	<b>Use Case III:</b> Libra or Librae: Basket based stablecoins	Thomas Leach
15.00 – 15.30	<b>Use Case I:</b> ICOs success drivers: a textual and statistical analysis	Toma Anca Mirela
15:30 – 16.00	Q&A on Use Cases	

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Pre-registration required to access the link:

[https://docs.google.com/forms/d/e/1FAIpQLSdmBIUWQI7wcOC9\\_ymJkDux8bAM7rJq75vMzZQ4xX-HN1R5kA/viewform](https://docs.google.com/forms/d/e/1FAIpQLSdmBIUWQI7wcOC9_ymJkDux8bAM7rJq75vMzZQ4xX-HN1R5kA/viewform)

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Please complete the evaluation form at the end of the workshop:

[https://docs.google.com/forms/d/e/1FAIpQLSeB\\_dcVQQVLj-qjgD-CjGBahgcaDhR\\_b8KT3DFtn6D52rAwfg/viewform](https://docs.google.com/forms/d/e/1FAIpQLSeB_dcVQQVLj-qjgD-CjGBahgcaDhR_b8KT3DFtn6D52rAwfg/viewform)





## Paris Blockchain RegTech

**LOCATION:** Paris

**DATE:** 05.11.2020

**[AGENDA](#)**

**[REGISTRATION LINK](#)**

**[EVALUATION LINK](#)**

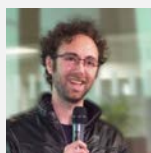
### Blockchain and technological risks

Blockchains are a technology that allows the transfer of value and the creation of Smart Contracts. However, the slightest error in the design of decentralized applications can lead to disastrous consequences. Through the analysis of past examples such as *The DAO*, this session will be dedicated to good programming practices on Solidity, Ethereum's language, and the pitfalls to avoid.

Programming error is not the only risk faced by designers of blockchain solutions. The economical architecture of blockchain models can also lead to flaws that could be exploited by an attacker.

While Decentralized Finance (DeFi) has been experiencing an unprecedented boom for several months. It is necessary to ensure the security and capacity of the blockchain infrastructure to support the growth of these financial innovations. During this event, it will be discussed: the short-term changes with Ethereum 2, the maturity and diffusion of scaling solutions and the consequences to be expected for companies using the technology.

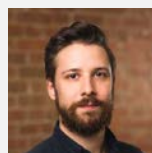
### Speakers



**Clément Lesaege**

*Kleros – CTO*

*Kleros is an open source online dispute resolution protocol which uses blockchain and crowdsourcing to fairly adjudicate disputes.*



**Jérôme de Tychey**

*Ledger - Global Head of Client Success*

*Leader of hardware wallet, Ledger develops security and infrastructure solutions for cryptocurrencies as well as blockchain applications.*

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## Consortium Partners



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or contact as at

[info@fintech-ho2020.eu](mailto:info@fintech-ho2020.eu)

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**05 November 2020**  
**Online webinar**

## Blockchain and technological risks

*The objective of the workshop is to investigate the risks developed by the use of blockchain through some use cases.*

### 14:00 Opening

#### 14.15 Clément Lesaege – CTO @Kleros

##### ***“Technological & Economical risks associate to blockchain”***

Blockchains are a technology that allows the transfer of value and the creation of Smart Contracts. However, the slightest error in the design of decentralized applications can lead to disastrous consequences. Through the analysis of past examples such as *The DAO*, this session will be dedicated to good programming practices on Solidity, Ethereum's language, and the pitfalls to avoid.

Programming error is not the only risk faced by designers of blockchain solutions. The economical architecture of blockchain models can also lead to flaws that could be exploited by an attacker. Special attention will also be paid to this point.

*Kleros is an open source online dispute resolution protocol which uses blockchain and crowdsourcing to fairly adjudicate disputes.*

### 15.00 Discussion

#### 15.30 Jérôme de Tychey – Global Head of Client Success @Ledger

##### ***“Foresight: what can we expect from the Ethereum ecosystem in the next 6 months?”***

The objective of this session is to study the impact of the evolutions of the Ethereum ecosystem on the Fintech sector.

Indeed, while decentralized finance (DeFi) has been experiencing an unprecedented boom for several months. It is necessary to ensure the security and capacity of the blockchain infrastructure to support the growth of these financial innovations. During this presentation, it will be discussed: the short-term changes with Ethereum 2, the maturity and diffusion of scaling solutions, the consequences to be expected for companies using the technology.

*Leader of hardware wallet, Ledger is a fast paced, growing company developing security and infrastructure solutions for cryptocurrencies as well as blockchain applications for individuals and companies, by leveraging a distinctive, proprietary technology.*

### 16.15 Discussion

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**Pre-registration required to access the link:**

**<https://cutt.ly/rgtp1h2020>**

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