

# Curriculum Vitae

## Matteo Repetto

### Europass

#### Personal Data

Informazioni Personali

Name/Surname

Nome/Cognome

Matteo Repetto

Sex

Sesso

Date of birth

Data di nascita

Nationality

Nazionalità

Phone

Telefono

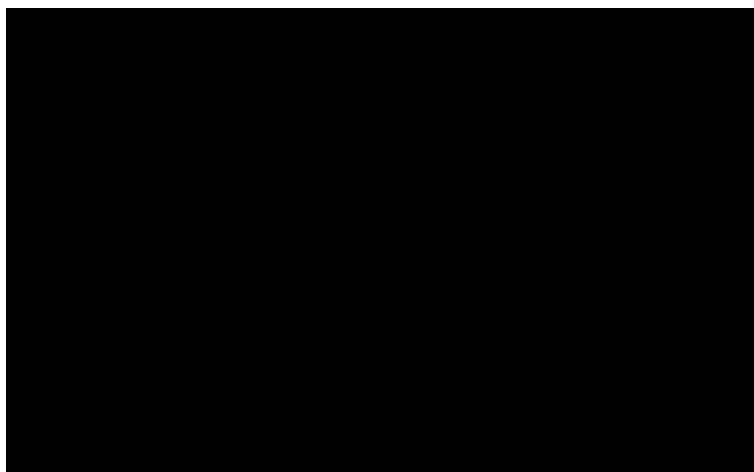
Email

Posta elettronica

Skype id

LinkedIn

Web



#### Work experience

Esperienza professionale

Position

Posizione

Research scientist

Ricercatore

Organization

Ente

Consiglio Nazionale delle Ricerche (CNR)

Istituto di Matematica Applicata e Tecnologie Informatiche (IMATI)

Genova, Italy

Period

Periodo

From 28/11/2019 to present

Dal 28/11/2019 ad oggi

Main tasks

Principali mansioni

- Scientific and technical coordination of international research projects (EU H2020)

Coordinamento tecnico/scientifico di progetti di ricerca internazionali (EU H2020)

- Coordination and management of research groups

Coordinamento e gestione di gruppi di ricerca

- Research in the telecommunication fields (including cloud/edge computing)

Ricerca in ambito telecomunicazioni (incluse piattaforme cloud e edge computing)

- Proposal writing for European (H2020, HE) and national (PRIN) research programmes

Preparazione di proposte di ricerca, nell'ambito di programmi Europei (H2020, HE) e nazionali (PRIN).

- Software development

Sviluppo software.

Position

Posizione

Research scientist

Ricercatore

Organization

Ente

Consorzio Nazionale Interuniversitario per le Telecomunicazioni

Genova, Italia

<b>Period</b> <i>Periodo</i>	01/01/2010 – 27/11/2019
<b>Main tasks</b> <i>Principali mansioni</i>	<ul style="list-style-type: none"> <li>• <b>Scientific and technical coordination of international research projects (EU H2020)</b> <i>Coordinamento tecnico/scientifico di progetti di ricerca internazionali (EU H2020)</i></li> <li>• <b>Coordination and management of research groups</b> <i>Coordinamento e gestione di gruppi di ricerca</i></li> <li>• <b>Research in the telecommunication fields (including cloud/edge computing)</b> <i>Ricerca in ambito telecomunicazioni (incluse piattaforme cloud e edge computing)</i></li> <li>• <b>Proposal writing for European (H2020, HE) and national (PRIN) research programmes</b> <i>Preparazione di proposte di ricerca, nell'ambito di programmi Europei (H2020, HE) e nazionali (PRIN)</i></li> <li>• <b>Software development</b> <i>Sviluppo software</i></li> </ul>
<b>Position</b> <i>Posizione</i>	<b>System administrator</b> <i>Amministratore sistemi ICT</i>
<b>Organization</b> <i>Ente</i>	Laboratorio di reti e telecomunicazioni (TNT Lab) Università degli Studi di Genova Genova, Italia
<b>Period</b> <i>Periodo</i>	2001-2019
<b>Platforms</b> <i>Piattaforme</i>	Linux servers, Linux/Windows/Mac clients, networking (Cisco, Juniper, HP)
<b>Position</b> <i>Posizione</i>	<b>Teacher</b> <i>Insegnante</i>
<b>Period</b> <i>Periodo</i>	From 2022 to present <i>Dal 2022 ad oggi</i>
<b>Types</b> <i>Tipologia</i>	<ul style="list-style-type: none"> <li>• <b>PhD courses</b> <i>Corsi di dottorato</i></li> <li>• <b>Post-academic and specialization courses</b> <i>Master e corsi di specializzazione post-universitaria</i></li> <li>• <b>Academic courses</b> <i>Corsi integrativi di insegnamenti accademici</i></li> <li>• <b>Vocational training</b> <i>Corsi di formazione professionale</i></li> </ul>
<b>Position</b> <i>Posizione</i>	<b>Post-doc</b>
<b>Organization</b> <i>Ente</i>	Università degli Studi di Genova, Genova, Italy Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT), Genova, Italy Consiglio Nazionale delle Ricerche (CNR), Genova, Italy
<b>Period</b> <i>Periodo</i>	01/01/2004 – 31/12/2009
<b>Main tasks</b> <i>Principali mansioni</i>	<ul style="list-style-type: none"> <li>• <b>Fundamental and applied research</b> <i>Attività di ricerca di base e applicata</i></li> <li>• <b>Software development</b> <i>Sviluppo software</i></li> </ul>

## Education and training

### Istruzione e formazione

Degree <i>Titolo</i>	PhD in Electronic and Computer Science Engineering <i>Dottorato di Ricerca in "Ingegneria Elettronica ed Informatica"</i>	Livello 8 QEQ
Organization <i>Istituto</i>	Università degli Studi di Genova Genova (Italy)	
Period <i>Periodo</i>	2001 – 2003	
Thesis <i>Tesi</i>	Estimation of non-urban vehicular traffic, user mobility models, and dynamic bandwidth allocation in multi-service mobile cellular networks (in Italian) <i>Stima del traffico veicolare in ambiente extraurbano, modelli di mobilità dell'utenza e allocazione dinamica di banda in reti radiomobili cellulari multiservizio</i>	
Degree <i>Titolo</i>	MSc Telecommunication Engineering <i>Laurea in Ingegneria delle Telecomunicazioni</i>	Livello 7 QEQ
Organization <i>Istituto</i>	Università degli Studi di Genova Genova (Italia)	
Period <i>Periodo</i>	1995 – 2000	
Final mark <i>Votazione</i>	110/110 (with honors) <i>110/110 e lode</i>	
Final dissertation <i>Tesi</i>	Dynamic bandwidth allocation mechanisms for mobile radio networks in highway environments <i>Tecniche per allocazione dinamica di banda per reti radiomobili in ambiente autostradale</i>	
Degree <i>Titolo</i>	High-school diploma in accounting, bookkeeping, and computer science – Mercurio programme <i>Diploma di maturità "Ragioniere Perito Commerciale e Programmatore – progetto Mercurio"</i>	Livello 4 QEQ
Organization <i>Istituto</i>	ITCS L. Einaudi, Genova, Italy	
Period <i>Periodo</i>	1990 – 1995	
Final ranking <i>Votazione</i>	60/60	

## Personal skills

### Competenze personali

Mother tongue <i>Lingua madre</i>	Italian <i>Italiano</i>													
Other language <i>Altra lingua</i>	English <i>Inglese</i>													
Self-assessment <i>Autovalutazione</i>	<table border="1"> <thead> <tr> <th colspan="2">Understanding <i>Comprensione</i></th> <th colspan="2">Speaking <i>Parlato</i></th> <th>Writing <i>Scritto</i></th> </tr> </thead> <tbody> <tr> <td>Listening <i>Ascolto</i></td> <td>Reading <i>Lettura</i></td> <td>Interaction <i>Interazione</i></td> <td>Production <i>Produzione orale</i></td> <td></td> </tr> </tbody> </table>		Understanding <i>Comprensione</i>		Speaking <i>Parlato</i>		Writing <i>Scritto</i>	Listening <i>Ascolto</i>	Reading <i>Lettura</i>	Interaction <i>Interazione</i>	Production <i>Produzione orale</i>			
Understanding <i>Comprensione</i>		Speaking <i>Parlato</i>		Writing <i>Scritto</i>										
Listening <i>Ascolto</i>	Reading <i>Lettura</i>	Interaction <i>Interazione</i>	Production <i>Produzione orale</i>											

B1

B2

B2

B1

C1

A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user

Common European Framework of Reference for Languages

Livelli: A1 e A2: Utente base - B1 e B2: Utente autonomo - C1 e C2: Utente avanzato

Quadro Comune Europeo di Riferimento delle Lingue

**Communication skills**

Competenze comunicative

- Good communication and relationship skills for working in team, gained in several international research and software development projects

*Buone capacità comunicative e relazionali per il lavoro in gruppo, acquisite durante la partecipazione a progetti di ricerca e di sviluppo software*

- Excellent expository skills, gained during many years of teaching and presenting

*Ottime capacità espositive, acquisite nel corso dell'attività didattica e presentazioni*

**Organisational and managerial skills**

Competenze organizzative e gestionali

- Excellent organizational skills, developed as technical/scientific coordinator and local principal investigators in international and national research projects.

*Ottime competenze organizzative di grandi attività di ricerca e sviluppo, come coordinatore tecnico/scientifico e responsabile di unità di progetti nazionali ed internazionali*

- Good skills in coordination and management of small working groups (3-5 people)

*Buone competenze di coordinamento e direzione di piccoli gruppi di lavoro (3-5 persone)*

- Tutoring of academic and PhD thesis

*Supervisione di tesi di laurea e dottorato in ambito universitario e post-universitario*

**Job-related skills**

Competenze professionali

- Excellent experience in scientific and technical management of EU-wide research projects

*Ottima esperienza di coordinamento tecnico/scientifico di progetti di ricerca Europei*

- Excellent experience in writing funding proposals (in both English and Italian)

*Ottima esperienza nella stesura di domande di progetti di ricerca*

- Excellent knowledge of networking technologies and protocols, including next-generation technologies (5G, fog and edge computing)

*Ottima conoscenza delle tecnologie e protocolli di networking, incluse quelle di prossima generazione (5G, fog e edge computing).*

- Excellent knowledge of Linux for software development and IT services

*Ottima conoscenza di sistemi Linux per implementare servizi di rete*

- Excellent software development skills for Linux-based environments

*Ottime competenze di sviluppo software per sistemi operativi basati su Linux*

- Excellent skills for designing, implementing, and configuring networking solutions

*Ottima esperienza di progettazione, implementazione, e configurazione di soluzioni di rete*

- Excellent teaching and training skills

*Ottime capacità didattiche*

- Good skills as IT System Administrator

*Buona esperienza come System Administrator*

- Good knowledge of cloud technologies (OpenStack, Kubernetes)

*Buona conoscenza di tecnologie cloud (OpenStack, Kubernetes)*

- Good software development skills in C/C++

*Buone capacità di sviluppo software (prevalentemente in linguaggio C/C++).*

- Buona manualità e disponibilità al lavoro pratico

*Good manual skills and availability to manual labour*

- High-speed type-writing

*Elevata velocità di scrittura al videoterminale*

- Excellent capability for self-training in ICT

*Elevata autonomia nell'acquisire nuove competenze in campo ICT*

**Digital skills** Deep knowledge of all common digital technologies  
*Competenza digitale* *Conoscenza approfondita di tutte le tecnologie digitali di uso comune.*

Self-assessment <i>Autovalutazione</i>	Information processing <i>Elaborazione delle informazioni</i>	Communication <i>Comunicazione</i>	Content creation <i>Creazione di contenuti</i>	Security <i>Sicurezza</i>	Problem solving <i>Risoluzione di problemi</i>
		Avanzato	Avanzato	Avanzato	Avanzato

**Computer skills**  
*Competenze informatiche*

• **Programming e scripting languages**

*Linguaggi di programmazione e scripting*

- Excellent knowledge of C++, Bash

*Ottima conoscenza di C++, Bash*

- Good knowledge of Matlab, C, SQL, Simulink

*Buona padronanza di Matlab, C, SQL, Simulink*

- Some knowledge of Python, PHP, HTML, Pascal, Cobol,

*Esperienze in Python, PHP, HTML, Pascal, Cobol*

- Basic knowledge of Java, Prolog, VHDL

*Conoscenze di base di Java, Prolog, VHDL*

• **Development IDE**

*Ambienti di sviluppo*

- Excellent knowledge of Make

*Ottima conoscenza Make*

- Experience with Visual C++, Borland Builder, WindRiver Tornado

*Esperienze in Visual C++, Borland Builder, WindRiver Tornado*

• **Operating Systems**

• **Sistemi operativi**

- Linux: excellent knowledge (firewalling, NAT, routing, programming)

*Ottima conoscenza Linux (firewalling, NAT, routing, programmazione)*

- Windows 2000/XP/7 e Mac OSX: good knowledge

*Buona conoscenza Windows 2000/XP/7 e Mac OSX*

• **Software applications**

*Applicativi software*

- Networking services: DNS Bind, Web Server Apache, MySQL, LDAP, Kerberos, CVS, SVN, GIT, CalDav/CardDav, Webmail, NFS, DHCP, NTP, Postfix, Cyrus, iptables

*Servizi di rete: DNS Bind, Web Server Apache, MySQL, LDAP, Kerberos, CVS, SVN, GIT, CalDav/CardDav, Webmail, NFS, DHCP, NTP, Postfix, Cyrus, iptables*

- Cloud computing: OpenStack, Kubernetes (user and administrator)

*Cloud computing: OpenStack, Kubernetes (utente e amministratore)*

- Security: opnsense, openvpn, openssl, strongswan

*Sicurezza: opnsense, openvpn, openssl, strongswan*

- Microsoft Office: Word, Powerpoint, Excel, Equation editor

*Pacchetto Microsoft Office: Word, Powerpoint, Excel, Equation editor*

- Word processor: OpenOffice/LibreOffice

*Word processor: OpenOffice/LibreOffice*

- Text processing: Latex, Bibtex

*Text processing: Latex, Bibtex*

- Multimedia: Cinelerra, Gimp, Inkscape, VLC, Avidemux

*Multimedia: Cinelerra, Gimp, Inkscape, VLC, Avidemux*

• **Networking devices**

*Apparati di networking*

- Cisco, Juniper, HP, Huawei

*Cisco, Juniper, HP, Huawei*

Driving licence B  
*Patente di guida*

## Qualifications *Abilitazioni*

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Type Professional engineer  
*Tipologia* *Abilitazione all'esercizio della professione di Ingegnere*

Public exam Esame di stato, I sessione 2001.  
*Concorso*

Year 2001  
*Anno*

Type CNR Researcher  
*Tipologia* *Idoneità ricercatore CNR*

Public exam Concorso indetto con il bando 364.92 del 22/12/2009, Area Scientifica A.2 "Scienze informatiche e ingegneria dell'informazione", Raggruppamento omogeneo I, Codice di riferimento GE 29/1, pubblicato sulla Gazzetta Ufficiale – 4a serie speciale – Concorsi, n. 99 del 29/12/2009. Risultato pubblicato sulla Gazzetta Ufficiale – 4a serie speciale – Concorsi, n. 84 del 21/10/2011  
*Concorso*

Year 2011  
*Anno*

Final mark 88,70/110  
*Punteggio*

Type CNR Senior Researcher  
*Tipologia* *Idoneità Primo Ricercatore CNR*

Public exam Concorso indetto con il bando n. 315.20, Prot. 0052104/2020 del 07/08/2020, Area Strategica Informatica.  
*Concorso*

Year 2021  
*Anno*

Final mark Punteggio: 66,60/110  
*Punteggio*

Type National scientific qualification  
*Tipologia* *Abilitazione Scientifica Nazionale*

Recruitment field 09/H1 – Information processing systems  
*Settore concorsuale* *09/H1 – Sistemi di elaborazione delle informazioni*

Level Associate Professor  
*Fascia* *II Fascia*

Selection 2021-2023, IV Quarter  
*Bando* *2021-2023, IV Quadrimestre*

Duration From 06/02/2023 to 06/02/2033  
*Validità* *Dal 06/02/2023 al 06/02/2033*

Type National scientific qualification  
*Tipologia*

*Abilitazione Scientifica Nazionale*

<b>Recruitment field</b> <i>Settore concorsuale</i>	<b>09/F2 - Telecommunications</b> <i>09/F2 – Telecomunicazioni</i>
<b>Level</b> <i>Fascia</i>	<b>Associate Professor</b> <i>II Fascia</i>
<b>Selection</b> <i>Bando</i>	<b>2021-2023, IV Quarter</b> <i>2021-2023, IV Quadrimestre</i>
<b>Duration</b> <i>Validità</i>	<b>From 08/02/2023 to 08/02/2033</b> <i>Dal 08/02/2023 al 08/02/2033</i>

**Annexes**

*Allegati*

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<b>Annex A</b> <i>Allegato A</i>	<b>Scientific publications</b> <i>Pubblicazioni scientifiche</i>
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**Additional information**

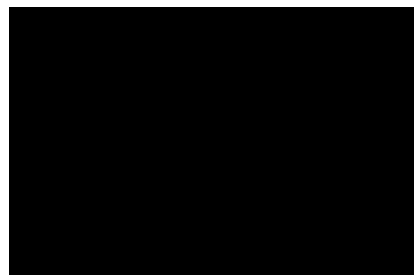
*Ulteriori informazioni*

**Personal data**

*Dati personali*

I hereby authorize the recipient of this document to use and process my personal details for the purpose of recruiting and selecting staff, in compliance with the EU Regulation UE 2016/679 (*General Data Protection Regulation*) and the Italian Legislative Decree no. 196 dated 30/06/2003 (*Codice in materia di protezione dei dati personali*).

*Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali" e del Regolamento UE 2016/679 ("General Data Protection Regulation").*



## Annex A Scientific publications

### Allegato A Pubblicazioni scientifiche

#### International journals

Riviste internazionali

- 
- [R1] R. Bolla and M. Repetto. "A New Model for Network Traffic Forecast Based on User's Mobility in Cellular Networks with Highway Stretches," *International Journal of Communication Systems*, vol. 17, no. 10, pp. 911-934, December 2004. DOI: 10.1002/dac.681.
- [R2] R. Bolla, R. Bruschi, F. Davoli and M. Repetto. "Hybrid Optimization for QoS Control in IP Virtual Private Networks," *Computer Networks*, vol. 52, no. 3, pp. 563-580, February 2008. DOI: 10.1016/j.comnet.2007.10.006.
- [R3] A. Alessandri, R. Bolla, M. Gaggero and M. Repetto. "Modeling and Identification of Nonlinear Dynamics for Freeway Traffic by Using Information from a Mobile Cellular Network," *IEEE Transactions on Control Systems Technology*, Volume: 17, Issue: 4, July 2009, pp. 952-959, ISSN 1063-6536, DOI: 10.1109/TCST.2009.2014242.
- [R4] R. Bolla and M. Repetto. "An Integrated Mobility Framework for Ad-Hoc Distributed Personal Networks," *International Journal of Communication Networks and Distributed Systems (IJCND)*, Volume 4, Number 3, 2 April 2010, pp. 306-330. DOI: 10.1504/IJCND.2010.032417
- [R5] R. Bolla, R. Rapuzzi, M. Repetto. "User-centric mobility management for multimedia content access," *Multimedia Tools and Applications*, Volume 70, Issue 1, May 2014, pp. 267-295. DOI: 10.1007/s11042-011-0827-9.
- [R6] R. Bolla, R. Rapuzzi, M. Repetto. "User-Centric Mobility for Multimedia Communication: Experience and Evaluation from a Live Demo," *Journal of Networks (JNW)*, Special Issue on Performance Modeling and Evaluation of Computer and Telecommunication Systems, Vol 7, No 1, January 2012, pp. 21-36, DOI: 10.4304/jnw.7.1.21-36.
- [R7] R. Bolla, M. Repetto. "A Comprehensive Tutorial for Mobility Management in Data Networks," *IEEE Communications Surveys & Tutorials*, Vol. 16, Issue 2, Second Quarter 2014, pp. 812–833, ISSN 1553-877X, DOI 10.1109/SURV.2013.071913.00140.
- [R8] R. Bolla, M. Giribaldi, R. Khan, M. Repetto. "Network Connectivity Proxy: Architecture, Implementation, and Performance Analysis," *IEEE Systems Journal*, Volume: 11, Issue: 2, June 2017, pp. 588 – 599. DOI: 10.1109/JSYST.2015.2438639.
- [R9] R. Bolla, M. Chiappero, R. Khan, M. Repetto. "Saving Energy by Delegating Network Activity to Home Gateways," *IEEE Transactions on Consumer Electronics*, Vol. 61, No. 4, November 2015, pp. 445–453, ISSN 0098-3063, DOI 10.1109/TCE.2015.7389798.
- [R10] R. Bolla, R. Khan, M. Repetto. "Assessing the Potential for Saving Energy by Impersonating Idle Networked Devices," *IEEE Journal on Selected Areas in Communications*, Vol. 34, No. 5, March 2016, pp. 1676–1689. DOI 10.1109/JSAC.2016.2545414.
- [R11] A. Carrega, M. Repetto, P. Gouvas and A. Zafeiropoulos. "A Middleware for Mobile Edge Computing," *IEEE Cloud Computing – Special Issue on Middleware for Multicloud*, Vol. 4, No. 4, July/August 2017, pp. 26–37, ISSN: 2325-6095, DOI: 10.1109/MCC.2017.3791021.
- [R12] R. Rapuzzi, M. Repetto. "Building situational awareness for network threats in fog/edge computing: Emerging paradigms beyond the security perimeter model," *Future Generation Computer Systems*, Volume 85, August 2018, pp. 235-249. DOI: 10.1016/j.future.2018.04.007.
- [R13] A. Carrega, G. Portomauro, M. Repetto, G. Robino. "Balancing QoS and power consumption in programmable 5G infrastructures," *Trans Emerging Tel Tech.*, vol. 29, no. 11, Nov. 2018. DOI: 10.1002/ett.3425.
- [R14] R. Bolla, A. Carrega, M. Repetto and G. Robino. "Improving Efficiency of Edge Computing Infrastructures through Orchestration Models," *Computers*, Vol. 7, No. 2, 36, 2018. DOI: 10.3390/computers7020036.
- [R15] Stefan Covaci, Matteo Repetto, and Fulvio Rizzo. "Towards Autonomous Security Assurance in 5G Infrastructures," *IEICE Transactions on Communications*, Vol. E102-B, No. 3, March 2019, pp. 401-409. DOI: 10.1587/transcom.2018NVI0001.



- [R16] A. Carrega, G. Portomauro, M. Repetto, G. Robino. "Boosting Energy Efficiency and Quality of Service through orchestration tools," *IEEE Cloud Computing – Special Issue: Reengineering Cloud Data Centers*, Vol. 5, No. 6, November/December 2018, pp. 38-47. Electronic ISSN: 2325-6095. DOI: 10.1109/MCC.2018.064181119.
- [R17] Carrega, A., Portomauro, G., Repetto, M. Robino, G. Energy efficiency for edge multimedia elastic applications. *Multimed Tools Appl* 78, 24739–24764 (2019). ISBN: 1573-7721. DOI: 10.1007/s11042-018-7050-x.
- [R18] A. Carrega, M. Repetto. Coupling Energy Efficiency and Quality of Service for Consolidation of Cloud Workloads. *Computer Networks*, Vol. 174, 19 June 2020. DOI: 10.1016/j.comnet.2020.107210.
- [R19] M Repetto, A. Carrega, R. Rapuzzi. An architecture to manage security operations for digital service chains. *Future Generation Computer Systems*, Volume 115, February 2021, Pages 251-266. DOI: 10.1016/j.future.2020.08.044.
- [R20] L. Caviglione, W. Mazurczyk, M. Repetto, A. Schaffhauser, M. Zuppelli. Kernel-level tracing for detecting stegomalware and covert channels in Linux environments. *Computer Networks*, Volume 191, May 2021. DOI: 10.1016/j.comnet.2021.108010.
- [R21] M. Repetto, D. Striccoli, G. Piro, A. Carrega, G. Boggia, R. Bolla. An autonomous cybersecurity framework for next-generation digital service chains. *Journal of Network and Systems Management*, Vol. 29, Art. no. 37, May 2021. DOI: 10.1007/s10922-021-09607-7.
- [R22] M. Zuppelli, A. Carrega, and M. Repetto. An Effective and Efficient Approach to Improve Visibility Over Network Communications. *Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications (JOWUA)*, Vol. 12, No. 4, December 2021, Pages: 89-108. DOI: 10.22667/JOWUA.2021.12.31.089.
- [R23] M. Repetto, G. Bruno, J. Yusupov, G. Lamanna, B. Ertl, and A. Carrega. Automating Mitigation of Amplification Attacks in NFV Services. *IEEE Transactions on Network and Service Management*, Vol. 19, No. 3, Sep. 2022, pages 2382-2396. DOI: 10.1109/TNSM.2022.3172880.
- [R24] M. Zuppelli, M. Repetto, A. Schaffhauser, W. Mazurczyk, L. Caviglione. Code Layering for the Detection of Network Covert Channels in Agentless Systems. *IEEE Transactions on Network and Service Management*, Vol. 19, No. 3, Sep. 2022, pages 2282 - 2294. DOI: 10.1109/TNSM.2022.3176752.
- [R25] M. Repetto. Interface to Security Functions: An overview and comparison of I2NSF and OpenC2. *IEEE Communication Standards Magazine*, Vol. 7, No. 4, Dec. 2023, pages 60-67. DOI: 10.1109/MCOMSTD.0003.2200066.
- [R26] M. Repetto. Adaptive monitoring, detection, and response for agile digital service chains. *Computers & Security*, Volume 132, September 2023, Article no. 103343. DOI: 10.1016/j.cose.2023.103343.
- [R27] M. Repetto. Chaining Digital Services: Challenges to Investigate Cyber-Attacks at Run-Time. *IEEE Communications Magazine*. DOI: 10.1109/MCOM.002.2200942. *Early access*.

## Non peer-reviewed journals

*Riviste senza revisione*

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- [N1] M. Repetto. "Boosting more efficiency in the cloud through the usage of power states," *European Energy Innovation*, Winter 2017, pp. 43.
- [N2] Raffaele Bolla, Maurizio Giribaldi, Giuseppe Piro and Matteo Repetto. La sicurezza informatica dei nuovi servizi digitali: un nuovo approccio architetturale. *ICT Security Magazine*, Ottobre 2019 (Italian only).
- [N3] F. Valenza, M. Repetto, S. Shiaeles. Guest editorial: Special issue on novel cyber-security paradigms for software-defined and virtualized systems. *Computer Networks*. DOI: 10.1016/j.comnet.2021.108126

## Book chapters

*Capitoli di libri*

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- [B1] R. Bolla, R. Bruschi, M. Canini and M. Repetto. "A High Performance IP Traffic Generation Tool Based on the Intel IXP2400 Network Processor," in F. Davoli, S. Palazzo, S. Zappatore, Eds., "Distributed Cooperative Laboratories: Networking, Instrumentation, and Measurements", Springer, Norwell, MA, 2006, pp. 127-142. DOI: 10.1007/0-387-30394-4\_10.
- [B2] R. Bolla, R. Rapuzzi, M. Repetto. "User Evaluation of Dynamic User-Centric Networking," in F. Alvarez, C. Costa, Eds. "User Centric Media", Springer, Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering Volume 60, 2012, pp 150-159. ISBN: 978-3-642-35144-0 (Print) 978-3-642-35145-7 (Online).
- [B3] R. Bolla, F. Cucchietti, M. Repetto. "The role of ICT in the evolution towards smart grids," in J. Wu, S. Rangan, H. Zhang, Eds. "Green Communications: Theoretical Fundamentals, Algorithms, and Applications", CRC Press, September 2012. ISBN: 978-1-4665-0107-2.
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- [C62] M. Repetto, A. Duzha, J. Kołodziej. A cybersecurity framework to guarantee reliability and trust for digital service chains – GUARD, in *22nd IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing (CCGrid)*, Taormina (Messina), Italy, May 16-19, 2022, pp. 763-766. DOI: 10.1109/CCGrid54584.2022.00088.
- [C63] M. Repetto, G. Lamanna. Evaluation of the data handling pipeline of the ASTRID framework. *4th International Workshop on Cyber-Security Threats, Trust and Privacy Management in Software-defined and Virtualized Infrastructures (SecSoft)*, July 1st, 2022, Milan, Italy, pp. 456-461. DOI: 10.1109/NetSoft54395.2022.9844122.
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## Italian Conferences

*Conferenze Italiane*

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- [I1] M. Zuppelli, L. Caviglione, C. Pizzi, M. Repetto. Rilevamento Efficiente di Covert Channel Preservando la Riservatezza del Traffico. In *Selected Papers Conferenza GARR 2021*, Online (per pandemia Covid-19), 07-16/06/2021.
  - [I2] A. Liguori, S. Mungari, M. Zuppelli, C. Comito, E. Cambiaso, M. Repetto, M. Guarascio, L. Caviglione, G. Manco. Using AI to face covert attacks in IoT and softwarized scenarios: challenges and opportunities. In *In Proceedings of the Italia Intelligenza Artificiale (Ital-IA23)*, CEUR Workshop proceedings, Vol-3486, 29-30 May 2023, Pisa, Italy, pp. 397-402. ISSN: 1613-0073.

## Poster sessions

*Poster*

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- [P1] R. Bolla, R. Bruschi, M. Canini and M. Repetto. "Open Source Traffic Generation (and Measurement) PktGen Application with the IXP2400 Network Processor," in *10th EMEA Academic Forum, Intel Higher Education Programme, Poster Session*, 18-20 March 2005, Gdansk, Poland.
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- [P3] R. Khan, R. Bolla, M. Repetto. "Design of UPnP based Cooperative Network Connectivity Proxy," in The Second IFIP Conference on Sustainable Internet and ICT for Sustainability (SustainIT), Pisa, Italy, October 4-5, 2012.
- [P4] R. Bolla, M. Giribaldi, R. Khan and M. Repetto. "Cooperative Proxying: An Approach to Reduce Network Energy Waste." Extended abstract. Student Poster Session. In INFOCOM 2013, Turin, Italy, April 14, 2013. Available: <http://infocom.di.unimi.it/images/stories/infocom/studentposter/1569713995.pdf>.
- [P5] R. Rapuzzi, M. Repetto, D. Tigano. "Beyond Transmission Performance: 5G Opportunities for Developing e-Energy Applications," in Proceedings of the Ninth International Conference on Future Energy Systems (e-Energy '18), Karlsruhe, Germany, June 12th -15th, 2018, pages 402-404. DOI: 10.1145/3208903.3212039.
- [P6] M. Repetto, A. Duzha, J. Kolodziej. "A cybersecurity framework to guarantee reliability and trust for digital service chains – GUARD," in The 22nd IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing, Taormina (Messina), Italy, May 16-19, 2022.

## Technical reports

*Rapporti tecnici*

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- [T1] F. Davoli, M. Repetto, C. Tornelli, G. Proserpio, F. Cucchietti. Boosting Smart Grids Through Energy Efficient ICT. ITU-T Publications on ICTs, the Environment and Climate Change, September 2012, Geneva, Switzerland. Available: <http://www.itu.int/ITU-T/climatechange/report-smartgrids.html>.

## Demos

*Dimostrazioni*

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- [D1] Session migration for multimedia interactive communications. Festival della Scienza 2009, Genoa, Italy, October 23-24, 2009.
- [D2] Personal Mobility. InterMedia Café, Athens, Greece, May 27-28, 2010.
- [D3] Live demonstration of the NCP prototype. Home Gateway Initiative (HGI) General Meeting, Turin, Italy, March 18-22, 2013.
- [D4] Live demonstration of the NCP prototype. Future Networks and Mobile Summit (FUNEMS 2013), Lisbon, Portugal, July 3-5, 2013.
- [D5] Smart Proxying: Reducing Energy Waste in Network Devices During Idle Periods. IEEE online conference on Green Communications (IEEE GreenComm), October 29-31, 2013.
- [D6] The Network Connection Proxy. Maintaining connectivity on behalf of sleeping devices. Public demo on YouTube. Available: <http://www.youtube.com/watch?v=kqm3VLhZb-w> (full version), <http://www.youtube.com/watch?v=SXU0sfOTOXE> (short version).
- [D7] Automated Security Management for Virtual Services. IEEE Conference on Network Function Virtualization and Software Defined Networks (IEEE NFV-SDN), Dallas, Texas, USA, November 12th-14th, 2019.
- [D8] The ASTRID framework. Mediterranean Security Event 2019 (MSE2019), Fodele Beach, Crete, Greece, October 29th-31st, 2019.