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# CURRICULUM VITAE

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## **Riccardo Patriarca, PhD**

Sapienza University of Rome

Dept. of Mechanical and Aerospace Engineering

Via Eudossiana, 18 – 00184 Rome (RM) - Italy

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### **TEACHING ACTIVITIES**

02/2019 - today **Adjunct Professor**

*Sapienza University of Rome (Italy), Faculty of Information Engineering, Informatics, and Statistics*

(a.a. 2019 - 2020): “Operations Management” for the MSc in Mechanical Engineering (in English).

(a.a. 2018 - 2019): “Industrial Plants” for the BSc in Mechanical Engineering.

11/2015 - today **Teacher**

*Italian military training center - CEFLI (Centro di Formazione Logistica Interforze)*

since 2019: “Fundamental of Maintenance Management” for the ONU/NATO/EU Course on Logistics.

*Italian Quality Culture Association - AICQ (Associazione Italiana Cultura Qualità)*

since 2019: “Risk Management”.

*Sapienza University of Rome (Italy) – INAIL (National Institute for Insurance against Accident at Work).*

(a.a. 2017 - 2018): “Resilience Engineering for complex socio-technical systems” for the Second level Master Degree in “Health and Safety Systemic management in the evolving work domain”.

*Sapienza University of Rome (Italy), Faculty of Civil and Industrial Engineering.*

(a.a. 2017 - 2018): “Availability and Maintainability” for the Second Level Master Degree in “Logistic and communication services for Complex systems”.

(a.a. 2017 - 2018): “Maintenance Policies” for the Second Level Master Degree in “Logistic and communication services for Complex systems”.

(a.a. 2016 - 2018): “Quality Management” for the Second Level Master Degree in “Logistic and communication services for Complex systems”

(a.a. 2015 - 2019): “Supply Chain Management” for the Second Level Master Degree in “Logistic and communication services for Complex systems”

11/2017 - today **Guest Lecturer**

*Lund University (Sweden), Faculty of Engineering.*

(a.a. 2017 - 2020): “Risk assessment in the safety area” for the Master of Science in “Risk Management”.

(a.a. 2018 - 2019): “Research Methodologies: Modelling (and visualising) the dynamics of high-risk systems” for the Master of Science in “Human Factors and System Safety”.

11/2014 - today **Tutor and Assistant Lecturer**

*Sapienza University of Rome (Italy), Faculty of Civil and Industrial Engineering and Faculty of Information Engineering, Informatics, and Statistics.*

(a.a. 2014 - 2017): “Operations Management”; “Quality Management”; “Industrial plants” for the MSc and BSc in Mechanical Engineering, and for the BSc and MSc in Management Engineering.

### **RESEARCH ACTIVITIES**

03/2018 - today **PostDoc Researcher** at Sapienza University of Rome, Faculty of Civil and Industrial Engineering, Department of Mechanical and Aerospace Engineering.

01/2018 - 04/2018 **PhD Intern** at EUROCONTROL, Brussels (Belgium), NMD/NOM/SAF (Safety Unit).

06/2014 - today **Research Assistant** at Sapienza University of Rome, Faculty of Civil and Industrial Engineering, Department of Mechanical and Aerospace Engineering.

*\*full list of project and research activities available on request*

## **EDUCATION**

2014 - 2017	<b>PhD (Doctor Europaeus) in “Industrial and Management Engineering”</b> at Sapienza University of Rome (Italy) – Department of Mechanical and Aerospace Engineering in collaboration with Lund University (Sweden). Thesis: “Developing risk and safety management methods for complex socio-technical systems: From Newtonian reasoning to Resilience Engineering”.
2016	<b>Visiting PhD Student Research</b> at Lund University (Sweden) – Division of Risk Management and Societal Safety.
2014	<b>MSc in Aeronautical Engineering</b> at Sapienza University of Rome (Italy).
2011	<b>BSc in Aerospace Engineering</b> at Sapienza University of Rome (Italy).

## **PROFESSIONAL QUALIFICATIONS AND ASSOCIATION**

since 2019	<b>Innovation Manager</b> of miSE – Italian Ministry of Economic Development
since 2019	<b>Advisory Board</b> of the <b>Lifeboat Foundation</b> , Member of the Complex Systems, Engineering and Space Settlement Boards
since 2018	<b>National Scientific Qualification as Associate Professor</b> in the scientific field: Industrial Systems Engineering.
2017	<b>Six Sigma Green Belt</b> Certification – Sapienza University of Rome
2016-2019	<b>Member of BIS-Italy</b> (British Interplanetary Society)
since 2014	<b>Member of AIDI</b> – Italian Associations of Operations Management Professors (Junior Member)

## **PUBLICATIONS**

*SCOPUS (updated 15 March 2020)*

H-index: 11

Documents: 42

Total citations: 370

*GOOGLE SCHOLAR (updated 15 March 2020)*

H-index: 13

Documents: 57

Total citations: 521

### *Editorial Board*

since 2020	Safety Science (Elsevier)
since 2020	Co-Editor in Chief – Academic of Strategic Management Journal (Allied Strategy)
2018-2019	Guest Editor - Complexity (Hindawi), for the Special Issue: Modelling and Quantification of Resilience in Complex Engineering Systems
2018-2019	Guest Editor - Sustainability (MDPI), for the Special Issue: “Inventory Management for Sustainable Industrial Operations”
2018-2019	Guest Editor - Sustainability (MDPI), for the Special Issue: “Resilience Engineering for Sustainability: Methodological Approaches and Practical Experience”
since 2018	Editor - Cogent Engineering (Taylor & Francis)
since 2017	Editorial board member - Journal of Safety Studies (MacroThink)
since 2017	Editorial board member - International Journal of Civil Aviation (MacroThink)

### *Scientific Board/Committee member*

2020	17th International Conference on Information Systems for Crisis Response and Management (ISCRAM 2020); Track on “AI Systems for Crisis and Risks” - Blacksburg (Virginia, USA)
2019 - today	Resilience Engineering Association (REA) Symposium, Co-chair REA Young Talent Committee
2019	16th International Conference on Information Systems for Crisis Response and Management (ISCRAM 2019); Track on “Knowledge, Semantics, and AI for risk and crisis management” - Valencia (Spain)
2018	Interoperability for Crisis Management: Increasing Resilience of Smart Cities (ICRIM 2018) - Berlin (Germany)
2017 - 2019	8th Resilience Engineering Association (REA) Symposium, Young Talent Committee Member - Kalmar (Sweden)
2017	19th NTCA International Conference (New Trends in Civil Aviation) – Prague (Czech Republic)
2017	11th FRAMily meeting & workshop – Rome (Italy)

### *Reviewer*

8 <sup>th</sup> Resilience Engineering Association (REA) Symposium – Kalmar (Sweden)	2019
Academy of Strategic Management Journal (Allied Journal)	since 2018
Aerospace (MDPI)	since 2018
AIAA Region Australia-Asia Student Conference – AIAA Sydney Section (AIAA)	since 2014
Applied Ergonomics (Elsevier)	since 2019
Applied Sciences (MDPI)	since 2020
Cogent Business & Management (Cogent OA)	since 2018
Cogent Engineering (Taylor & Francis)	since 2018
Cognition, Technology & Work (Springer)	since 2017
Computers & Industrial Engineering (Elsevier)	since 2018
CRC Press, reviewer of book proposals (Taylor & Francis)	since 2019
Electronics (MDPI)	since 2019
Energies (MDPI)	since 2018

Entropy (MDPI)	since 2018
Expert Systems With Applications (Elsevier)	since 2017
Infrastructures (MDPI)	since 2018
Int. J. of Environmental Research and Public Health (MDPI)	since 2018
Int. J. of Production Research (Taylor & Francis)	since 2016
Int. J. of Productions Economics (Elsevier)	since 2019
Int. J. of Supply Chain and Inventory Management (Inderscience)	since 2017
Inventions (MDPI)	since 2019
J. of Aerospace Information Systems (AIAA)	since 2018
J. of Aerospace Information Systems (AIAA)	since 2017
J. of Air Transport Management (Elsevier)	since 2018
J. of Computational Methods in Sciences and Engineering (IoS Press)	since 2019
J. of Contingencies and Crisis Management (Wiley)	since 2019
J. of Industrial Engineering and Management (OmniaScience)	since 2017
J. of Loss Prevention in the process industries (Elsevier)	since 2019
J. of Residuals Science & Technology (DEStech publication Inc)	since 2016
J. of Safety Studies (MacroThink)	since 2017
Kybernetes (Emerald Insight)	since 2017
MLIS 2019 Int. Conf. on Machine Learning and Intelligent Systems – Hualien (Taiwan)	2019
Naval Research Logistics (Wiley)	since 2019
PLOS One (Public Library of Science)	since 2016
Progress in Nuclear Energy (Elsevier)	since 2019
Quality and Reliability Engineering International (Wiley)	since 2019
Reliability Engineering & System Safety (Elsevier)	since 2017
Safety (MDPI)	since 2018
Safety and Health at Work (Elsevier)	since 2019
Safety Science (Elsevier)	since 2016
Supply Chain Forum Journal (Taylor & Francis)	since 2019
Sustainability (MDPI)	since 2018
Symmetry (MDPI)	since 2019
The Open Cybernetics and Systemics Journal (Bentham Open)	since 2017
The Open Transportation Journal (Bentham Open)	since 2019
Transportation Research Part E: Logistics and Transportation Review (Elsevier)	since 2016
Water and Environment Journal (Elsevier)	since 2019

#### International journals (33)

1. Saurin, T.A., **Patriarca, R.**, 2020. *A taxonomy of interactions in socio-technical systems: A functional perspective*, Applied Ergonomics, vol. 82. doi: 10.1016/j.apergo.2019.102980.
2. **Patriarca, R.**, Hosseini, S., 2019. Modeling and quantification of resilience in complex engineering systems, Complexity, number 1038908. ISSN: 1076-2787. Doi: 10.1155/2019/1038908.
3. **Patriarca R.**, Di Gravio G., Costantino F., 2019. *About resilience of modern societies*, Ekonomika I Upravljenje: Problemy, Resheniya, vol. 10 (4), page 97-103, UDK 330.332.21. ISSN: 2227-389.
4. Falegnami A., Costantino C., Di Gravio G., **Patriarca R.**, 2019. *Unveil key functions in socio-technical systems: Mapping FRAM into a multilayer network*, Cognition, Technology & Work, in press. doi: 10.1007/s10111-019-00612-0.
5. **Patriarca R.**, Hu T., Costantino F., Di Gravio G., Tronci M., 2019. *A System-Approach for Recoverable Spare Parts Management Using the Discrete Weibull Distribution*, Sustainability, vol.11, 5180, pp.1-15.
6. Adriaensen A., **Patriarca R.**, Smoker A., Bergstrom J., 2019. A socio-technical analysis of functional properties in a joint cognitive system. A case study in an aircraft cockpit, ISS: 0014-0139 (in press). doi: 10.1080/00140139.2019.1661527.
7. **Patriarca R.**, Di Gravio G., Costantino F., 2019. *Risk, safety, reliability and satellites: Chronicles of a fragmented research field*. Journal of Space Safety Engineering, ISSN 2468-8967, (in press). doi: 10.1016/j.jsse.2019.08.002.
8. **Patriarca, R.**, Di Gravio, G., Costantino, F., Fedele, L., Tronci, M., Bianchi, V., Caroletti, F., Bilotta, F., 2019. *Systemic safety management in anesthesiological practices*, Safety Science, Volume 118, Pages 551-567, ISSN 0925-7535, <https://doi.org/10.1016/j.ssci.2019.08.021>.
9. **Patriarca, R.**, Di Gravio, G., Cioponea, R., Licu, A., 2019. *Safety intelligence: Incremental proactive risk management for holistic aviation safety performance*. Safety Science, Volume 118, Pages 551-567, ISSN 0925-7535, <https://doi.org/10.1016/j.ssci.2019.05.040>.
10. **Patriarca R.**, Falegnami A., De Nicola A., Villani M.L., Paltrinieri N., 2019. *Serious games for industrial safety: An approach for developing resilience early warning indicators*. Safety Science, Volume 118, Pages 316-331, ISSN 0925-7535, <https://doi.org/10.1016/j.ssci.2019.05.031>.
11. **Patriarca R.**, Falegnami A., Bilotta F., (2018). *Embracing simplicity: the role of artificial intelligence in peri-procedural medical safety*. Expert Review of Medical Devices, ISSN 1743-4440, vol. 16 (2), pp. 77-79, doi: 10.1080/17434440.2019.1561269.
12. Menchinelli, A., Ingiosi, F., Pamphili, L., Marzioli, P., **Patriarca, R.**, Costantino, F., Piergentili, F., (2018). *A reliability engineering approach for managing risks in CubeSats*. Aerospace, ISSN 2226-4310, vol. 5 (4), pp. 1-24, doi: 10.3390/aerospace5040121.

13. Falegnami A., Bilotta F., Pugliese, F., Costantino F., Di Gravio, G., Tronci, M., **Patriarca R.**, (2018). *A multi-country comparative survey about organizational resilience in anesthesia*. Journal of Evaluation in Clinical Practice, ISSN 0951-8320, vol. 24 (6), pp. 1347-1357, doi: 10.1111/jep.13054.
14. **Patriarca R.**, Falegnami A., Costantino F., Bilotta F., (2018). *Resilience Engineering for socio-technical risk analysis: application in neuro-surgery*. Reliability Engineering & System Safety, ISSN 0951-8320, vol. 180, pp. 321-335. doi: 10.1016/j.res.2018.08.001.
15. **Patriarca R.**, Falegnami, A., Di Gravio G., Costantino, F., Bilotta, F., (2018). *An analytic framework to assess organisational resilience*. Safety and Health at Work, ISSN: 2093-7911, vol. 9(3), pp. 265-276. doi: 10.1016/j.shaw.2017.10.005.
16. **Patriarca R.**, Bergström J., Di Gravio G., Costantino, F., (2018). *Resilience Engineering: current results and future challenges*. Safety Science, ISSN 0925-7535, vol. 102, pp. 79-100. doi: 10.1016/j.ssci.2017.10.005.
17. **Patriarca R.**, Di Gravio G., Costantino F., Tronci M., Severoni A., Vernile A., Bilotta F. (2017). *A paradigm shift to enhance patient safety in health care, a Resilience Engineering approach: scoping review of available evidence*. International Journal of Healthcare Technology and Management, ISSN 1741-5144, vol. 16 (3-4), pp. 319-343. doi: 10.1504/IJHTM.2017.088872.
18. Costantino, F., Di Gravio, G., **Patriarca R.**, Petrella L. (2018). *Spare parts management for irregular demand items*. OMEGA: The management science journal, ISSN 0305-0483, vol. 81, pp. 57-66. doi: 10.1016/j.omega.2017.09.009.
19. **Patriarca R.**, Del Pinto G., Di Gravio G., Costantino F., 2018. *FRAM for systemic accident analysis: a matrix representation of functional resonance*. International Journal of Reliability, Quality and Safety Engineering, ISSN 1793-6466. doi: 10.1142/S0218539318500018.
20. **Patriarca R.**, Bergström J., 2017. *Modelling complexity in everyday operations: Functional resonance in maritime mooring at quay*. Cognition, Technology & Work, ISSN 1435-5566, vol. 19 (4), pp. 711-729. doi: 10.1007/s10111-017-0426-2.
21. **Patriarca R.**, Bergström J., Di Gravio G., 2017. *Defining the functional resonance analysis space: Combining Abstraction Hierarchy and FRAM*. Reliability Engineering and System Safety, ISSN 0951-8320, vol. 165, pp. 34-46. doi: 10.1016/j.res.2017.03.032.
22. **Patriarca R.**, Di Gravio G., Costantino F., 2017. *Resilience Engineering to assess risks for the Air Traffic Management system: a new systemic method*. International Journal of Reliability and Safety, vol. 16 (4), pp. 323-345, doi: 10.1504/IJRS.2016.10005344.
23. **Patriarca R.**, Di Gravio G., Costantino F., 2017. *A Monte Carlo evolution of the Functional Resonance Analysis Method (FRAM) to assess performance variability in complex systems*. Safety Science, ISSN 0925-7535, vol. 91, pp. 49-60. doi: 10.1016/j.ssci.2016.07.016.
24. **Patriarca R.**, Costantino F., Di Gravio G., & Tronci M., 2017. *The Functional Resonance Analysis Method for a systemic risk based environmental auditing in a sinter plant: A semi-quantitative approach*. Environmental Impact Assessment Review, ISSN 0195-9255, vol. 63, pp. 72-86. doi: 10.1016/j.eiar.2016.12.002.
25. Di Gravio G., **Patriarca R.**, Costantino F., Sikora I., 2017. *Safety assessment for an ATM system change: a methodology for the ANSPs*. PROMET - Traffic & Transportation, ISSN 1848-4069, vol. 29 (1), pp. 99-107. doi: <http://dx.doi.org/10.7307/ptt.v29i1.2121>.
26. **Patriarca R.**, Di Gravio G., Mancini M., Costantino F., 2016. *Change management in the ATM system: integrating information in the Preliminary System Safety Assessment*. International Journal of Applied Decision Sciences, ISSN 1755-8085, vol. 9 (2), pp. 121-138. doi: 10.1504/IJADS.2016.10000985.
27. **Patriarca R.**, Costantino F., Di Gravio G., 2016. *Inventory model for a multi-echelon system with unidirectional lateral transshipment*. Expert Systems with Applications, ISSN 0957-4174, vol. 65, pp. 372-382. doi:10.1016/j.eswa.2016.09.001.
28. Costantino F., Di Gravio G., Nonino F., **Patriarca R.**, 2016. *Evolution of the intellectual structure of research on pricing strategy of low cost carriers*. Research in Transportation Business and Management, ISSN 2210-5395, vol. 21, pp.9 9-116. doi:10.1016/j.rtbm.2016.07.005.
29. **Patriarca R.**, Costantino F., Di Gravio G., Tronci M., 2016. *Inventory optimization for a customer airline in a performance based contract*. Journal of Air Transport Management, ISSN 0969-6997, vol. 57, pp. 206-216. doi:10.1016/j.jairtraman.2016.08.005.
30. **Patriarca R.**, Di Gravio G., Costantino F., 2016. *Assessing performance variability of ground handlers to comply with airport quality standards*. Journal of Air Transport Management, ISSN 0969-6997, vol. 57, pp. 1-6, doi: 10.1016/j.jairtraman.2016.06.009.
31. Di Gravio G., **Patriarca R.**, Mancini M., Costantino F., 2016. *Overall safety performance of the Air Traffic Management system: The Italian ANSP's experience on APF*. Research in Transportation Business and Management, ISSN 2210-5395, vol. 20, pp. 3-12, doi:10.1016/j.rtbm.2016.03.001.
32. Di Gravio G., Mancini M., **Patriarca R.**, Costantino F., 2015. *Overall safety performance of the Air Traffic Management system: indicators and analysis*. Journal of Air Transport Management, ISSN 0969-6997, vol. 44-45, pp. 65-69, doi: 10.1016/j.jairtraman.2015.02.005.
33. Di Gravio G., Mancini M., **Patriarca R.**, Costantino F., 2015. *Overall safety performance of Air Traffic Management system: forecasting and monitoring*. Safety Science, ISSN 0925-7535, vol. 72, pp. 351-362, doi: 10.1016/j.ssci.2014.10.003.

#### International conference proceedings (23)

1. **Patriarca R.**, Di Gravio G., Costantino F., 2019. *About resilience of modern societies*, 13<sup>th</sup> International Scientific Conference "Humanitarian economic and management aspects of modern government and business structures. 01-03 December 2019, Domodedovo Moscow (Russia). UDK 330.332.21. ISSN: 2227-389, page 97-103. (abstract extend as journal paper published in Ekonomika I Upravlenie: Problemy, Resheniya)

2. Lališ, A., **Patriarca, R.**, Ahmadv, K., Di Gravio, G., Kostov, B., 2019. Functional modeling in safety by means of foundational ontologies, 8th International Conference on Air Transport – INAIR 2019 Global Trends In Aviation, 12-13 November 2019, Budapest (Hungary).
3. Quatrini E., Costantino F., Di Gravio G., **Patriarca R.**, 2019. Load forecast for onboard high-speed railway catering service using machine learning, Proceedings of XXIV Summer School “Francesco Turco” Impianti Industriali Meccanici “Augmented Knowledge: A new era of industrial systems engineering”, 11-13 September 2019, Brescia (Italy).
4. **Patriarca, R.**, Di Gravio, G., Costantino, F., Tronci, M., 2019. WHO? WHAT? WHERE? WHEN? A scientometric perspective on Resilience Engineering. 8th Resilience Engineering Association (REA) symposium. Kalmar (Sweden), 24-27 June 2019.
5. **Patriarca, R.**, Adriaensen, A., Peters, M., Putnam, J., Costantino, F., Di Gravio, G., 2019. Receipt and dispatch of an aircraft. A functional risk analysis. 8th Resilience Engineering Association (REA) symposium. Kalmar (Sweden), 24-27 June 2019.
6. **Patriarca, R.**, Di Gravio, G., Costantino, F., 2019. Risk, Safety and Reliability in satellite operations: The intellectual structure of a research field. 10th IAASS Conference “Making safety happen”, 15-17 May 2019 Los Angeles (California).
7. **Patriarca, R.**, Cioponea, R., Di Gravio, G., Licu, A., 2018. Managing safety data: the TOKAI experience for the ANSPs, 7th International Conference on Air Transport – INAIR 2018, Hainburg an der Donau (Austria), 20-21 November 2018.
8. **Patriarca R.**, Di Gravio G., Costantino F., Tronci M. 2017. Project risk management in complex socio-technical systems: A resilience perspective. Proceedings of the 3rd PMI Italian Academic Workshop “Project Management: Driving Complexity”, 20th -21st September 2018 Rome (Italy). ISBN 978-88-9377-086-6 Sapienza Università Editrice.
9. **Patriarca R.**, Falegnami A., De Nicola A., Villani M.L., Paltrinieri N., 2018. Gamification for industrial safety: an approach for developing resilience early warning indicators. 27th SRA-E conference “Risk & Uncertainty – From Critical Thinking to Practical Impact”, Ostersund (Sweden), 18-20 June 2018.
10. Gattola, V., **Patriarca, R.**, Tomasi, G., Tronci, M., 2018. Functional resonance in industrial operations: A case study in a manufacturing plant. 2018 16th IFAC symposium on Information Control Problems in Manufacturing (INCOM), Bergamo (Italy).
11. **Patriarca R.**, Di Gravio G., Costantino F., 2018. myFRAM: an open tool support for the Functional Resonance Analysis Method. 2017 2nd International Conference on System Reliability and Safety (ICSRS 2017), Milan (Italy), 20-22 December 2017.
12. **Patriarca R.**, 2018. *New trends for risk and safety management in the aviation domain: A resilience engineering perspective*. 19th international conference “New trends in civil aviation”, 7-8 December 2018, Prague (Czech Republic) ISBN 978-0-8153-7602-6 CRC Press Proceedings and Monographs in Engineering, Water and Earth Sciences.
13. De Nicola A., Falegnami A., **Patriarca R.**, Vicoli G., Villani M.L., 2017. Enhancement of Safety Imagination in Socio-Technical Systems with Gamification and Computational Creativity. ESReDA 53rd Seminar “Enhancing Safety: the Challenge of Foresight”, Ispra (Italy), 14-15 November 2017.
14. Adriaensen A., **Patriarca R.**, Smoker A., Bergstrom J. 2017. Can artefacts be analyzed as an agent by itself – yes or no: what does Hutchins ‘how does a cockpit remember its speeds’ tell us. Proceedings of 7th REA Symposium, 26th-29th June 2017 Liege (Belgium).
15. **Patriarca R.**, Di Gravio G., Costantino F., Tronci M. 2017. FRAM to assess performance variability in everyday work: functional resonance in the railway domain. Proceedings of 7th REA Symposium, 26th-29th June 2017 Liege (Belgium).
16. Costantino F., Di Gravio G., **Patriarca R.**, Tronci M., 2017. *A systemic approach for spare parts management in a Performance Based Contract*. Proceedings of XXII Summer School “Francesco Turco”: “Innovation and development in engineering applications” 13-15 September 2017, Mondello (Italy), ISBN 978-88-908649-0-2.
17. **Patriarca R.**, Di Gravio G., Costantino F., Tronci M., 2017. *An inventory management model to manage the stock level for irregular demand items*, ICCIE 2017: 19th International Conference on Computers and Industrial Engineering, 13th -14th July 2017, Stockholm (Sweden).
18. **Patriarca R.**, Costantino F., Di Gravio G., 2016. *Resilience Engineering for space missions safety assessment*. Proceedings of 8th IAASS Conference “Safety first, Safety for all”, 18-20 May 2016 Melbourne (Florida).
19. Sikora I., **Patriarca R.**, Di Gravio G., Costantino F., 2016. *MARS – A fresh look at risk assessment modelling and effective safety data communication*. Proceedings of Znanost I Razvitak Prometa (ZIRP 2016), 12 April 2016, Zagreb (Croatia), ISBN 978-953-243-081-3, pp.193-209.
20. Costantino F., Di Gravio G., **Patriarca R.**, Tronci M., 2015. *Simulation model of spare parts management in a commercial pool contract*. 5th International Conference of Production Engineering and Management, 1-2 October 2015, Trieste (Italy), ISBN 978-3-941645-11-0.
21. Di Gravio G., Mancini M., **Patriarca R.**, Costantino F., 2014. *ATM safety management: reactive and proactive indicators*. Proceedings of 4th SESAR Innovation Days (SIDs 2014) EUROCONTROL, 25-27 November 2014, Madrid (Spain), ISBN 978-2-87497-077-1.
22. Costantino F., Di Gravio G., **Patriarca R.**, Tronci M., 2014. *Spare parts inventory control model for the aeronautical industry*. Proceedings of XIX Summer School “Francesco Turco”: “A challenge for the future” 9-12 September 2014, Senigallia (Italy), ISBN 978-88-908649-1-9.
23. **Patriarca R.**, 2014. *Forecasting overall safety performance of Air Traffic Management System*. Proceedings of 10th Pegasus AIAA Student Conference, Prague (Czech Republic), 23-25 April 2014, ISBN 978-80-01-05459-8, 2014.

#### Other presentations in conferences (15)

1. **Patriarca R.**, Di Gravio G., Costantino F., (2019). myFRAM one year later: recap and agenda, proceedings (abs) of 13th FRAMily meeting & workshop, 27-29 May 2019, Malaga (Spain).
2. **Patriarca, R.**, Volpini, R. (2019). Bi tools and e-TOKAI ENAV demo, EUROCONTROL Safety Team, Eurocontrol's Headquarters - Brussels (Belgium), 13 February 2019.

3. **Patriarca, R.** (2019). Risk management in complex systems, Heroes meet in Maratea – Innovation, Future, Companies, Maratea (Italy), 20 September 2019.
4. **Patriarca, R.,** Di Gravio, G., Volpini, R. (2019). From raw data to Safety Intelligence. 98<sup>th</sup> Italian Flight Safety Committee National Assembly, Fiumicino (Italy), 23 May 2019.
5. **Patriarca, R.** (2019). E-TOKAI BI: updates on this journey, eTOKAI CCB (Change Control Board), Eurocontrol's Headquarters - Brussels (Belgium), 18 June 2019.
6. **Patriarca, R.** (2019). Business Intelligence for Safety Data, eTOKAI CCB (Change Control Board), Eurocontrol's Headquarters - Brussels (Belgium), 4-5 December 2019.
7. **Patriarca, R.** (2019). e-TOKAI BI Analysis and Integration, eTOKAI CCB (Change Control Board), Eurocontrol's Headquarters - Brussels (Belgium), 5 March 2019.
8. **Patriarca, R.** (2018). From eTOKAI to PowerBI, eTOKAI CCB (Change Control Board), Eurocontrol's Headquarters - Brussels (Belgium), 7 December 2018.
9. **Patriarca, R.** (2018). Safety analysis based on TOKAI data, TOKAI CCB UG meeting - Eurocontrol's Headquarters - Brussels (Belgium), 27 June 2018.
10. **Patriarca R.,** Di Gravio G., Costantino F. (2018). *About myFRAM: An Open Tool Support for the FRAM*, proceedings (abs) of 12th FRAMily meeting and workshop, 11-13 June 2018, Cardiff (Galles).
11. **Patriarca, R.** (2018). Advancing safety data analytics – using TOKAI and RAT data, CANSO Safety Standing Committee, - Rome (Italy), 19 April 2018.
12. **Patriarca, R.** (2018). A data-driven approach for implementing Safety-II in ATM safety management Using TOKAI and RAT data, 2nd ANSP Safety Dashboard Panel - Future Sky Safety Project, Eurocontrol's Headquarters - Brussels (Belgium), 13 March 2018.
13. **Patriarca, R.** (2018). A pragmatic approach for safety management - Using TOKAI and RAT data, CCB (Change Control Board) RAT and TOKAI, Bucharest (Romania), 7-8 March 2018.
14. **Patriarca R.,** Bergstrom J., Di Gravio G., Costantino F., Falegnami A. (2017). *A multi-layer FRAM: The Abstraction/Agency framework for modelling complex socio-technical systems*, proceedings (abs) of 11th FRAMily meeting & workshop, 24/26 May 2017, Roma.
15. **Patriarca R.,** Di Gravio G., Costantino F. (2016). *Monte Carlo simulation to assess performance variability in the FRAM*, proceedings (abs) of 10th FRAMily meeting & workshop, 1-3 June 2016, Lisbona (Portogallo)

#### Keynote Speeches and other magazines (5)

1. **Patriarca R.,** 2019. *Safety Intelligence dashboards*. Safety & Security Conference, 20-21 November 2019, Prague (Czech Republic) – keynote speech
2. **Patriarca R.,** 2018. *Failure is always an option: shifting from linear to complex analyses*. Safety & Security Conference, 21-22 November 2018, Prague (Czech Republic) – keynote speech
3. **Patriarca R.,** 2018. *New trends for risk and safety management in the aviation domain: A resilience engineering perspective*. 19<sup>th</sup> international conference “New trends in civil aviation”, 7-8 December 2018, Prague (Czech Republic) – keynote speech
4. **Patriarca R.,** 2016. *Dynamic safety models for space safety*. Space Safety Magazine, 11 July 2016, online reference: <http://www.spacesafetymagazine.com/magazine/dynamic-models-enhance-space-safety/> - online magazine
5. **Patriarca R.,** 2016. *Il punto di vista sulla safety: Safety-I vs Safety-II*. SAFEBULL ENAV S.p.A. Safety journal, Vol. 9/2015 (in Italian) - ENAV safety magazine

#### RESEARCH AWARDS

2020	<b>SAPIExcellence scholarship.</b> Project awarded with a full-funded scholarship for 1 year as a promising ERC Starting Grant proposal within the framework BE-FOR-ERC Sapienza. Project: RESCUE, Resilience Engineering for Safety in Complex Unexpected Events.
2019	<b>Premio Italia Giovane 2019.</b> 10 Under 35 Italians are awarded for “[...] their professional, artistic, or scientific achievement, as examples of enthusiasm, positivity, courage and professionalism”. Riccardo receives the award in the category “Space”.
2019	<b>Forbes Italia 100 Young leaders of the future (category: science).</b> Riccardo has been nominated as one of the 100 Italian young leaders of the future (category: science) for his research in risk, safety and resilience management. In particular, Riccardo is one of the 5 Italian in the category “Science”.
2019	<b>Winner of the 2019 International Association for Advancements of Space Safety and Space Generation Advisory Council scholarship.</b> The scholarship was provided for best papers submitted the 10 <sup>th</sup> IAASS Conference “Making safety happen” (scheduled for: 14-17 May 2019, Los Angeles, California).
2019	<b>Forbes 30 Under 30 Europe (category: science and healthcare).</b> Riccardo has been listed as one of “[...] the most revolutionary European entrepreneurs, innovators and disruptors [...], who are changing the game throughout the region and across the globe”.
2018	<b>SESAR Young Scientist Award (2<sup>nd</sup> place).</b> SESAR is a collaborative project to completely overhaul European airspace and European Air Traffic Management (ATM). SESAR Joint Undertaking manages the selection process and awarded the best three ATM researchers of 2018.
2017	<b>“Minerva Award”</b> – Award for best scientific PhD research at Sapienza University of Rome. An award is assigned for each macro-research field – <i>Category: PhD Student</i> .

- 2017 **RAeS Young Person Award** for the exceptional achievement and promise in aerospace, awarded by the Royal Aerospace Society (RAeS), counting on the results of his Phd research project.
- 2017 **Young Talent in Resilience Engineering.** Awards for the best young researchers in the field of Resilience Engineering, in the Young Talents in Resilience Engineering Program, managed by the Resilience Engineering Association (REA) for the REA symposium 2017.
- 2016 **Winner of ESRA (European Safety and Reliability Association) scholarship** for the continuing education course on “Advanced methods for reliability, availability, maintainability, diagnostics and prognostics of industrial equipment” (21-24 November 2016, Milan, Italy)
- 2016 **Winner of the 2016 International Association for Advancements of Space Safety and Space Generation Advisory Council scholarship.** The scholarship was provided to three researchers authors of the three best technical submission for the 8<sup>th</sup> IAASS Conference “Safety first, Safety for all” (18-20 May 2016, Melbourne, Florida).
- 2016 **Selected paper** during Znanost I Razvitak Prometa (ZIRP 2016), 12 April 2016, Zagreb (Croatia):  
Di Gravio G., **Patriarca R.**, Costantino F., Sikora I., 2017. *Safety assessment for an ATM system change: a methodology for the ANSPs* (invited to submission to PROMET peer-reviewed journal).
- 2015 **SESAR Certificate of Scientific Excellence.** SESAR is a collaborative project to completely overhaul European airspace and European Air Traffic Management (ATM). SESAR Joint Undertaking manages the selection process and awarded the best three ATM researchers of 2015.
- 2015 **Aerodays 2015 Unique Italian Finalist – Post-graduate researcher category.** Aerodays 2015 (20-23 October 2015, London, UK). Royal Aeronautical Society manages the selection process.

## **LANGUAGES**

Italian: mother tongue

English: C2

French: B1

Rome, 15<sup>th</sup> March 2020