

## NATRELLA GIANLUCA

### Overview

? Unit: ELE  
? Role: Ricercatore  
? Grade: Ricercatore t.d. art. 24 c. 3 lett. A Legge 240/10 (t.pieno)  
? SSD: IIND-08/B (Sistemi elettrici per l'energia)  
? Scopus ID: 57638571300  
? Unige Id: 497101  
? Retrieved at: 2025-11-14T15:15:45.388635

### Contact

? Email: gianluca.natrella@unige.it  
? Page: <https://rubrica.unige.it/personale/UUpAWIpo>

### Career

? Dr, 2020-11-01 ? 2023-10-31  
? Be, 2023-11-01 ? 2024-06-30  
? Rd, 2024-08-01 ? 2027-07-31

### Scopus Metrics

? absolute; Docs: 12; Journals: 5; Conferences: 7; Citations: 141; H-index: 5  
? 15 years (2010-2025); Docs: 12; Journals: 5; Conferences: 7; Citations: 141; H-index: 5  
? 10 years (2015-2025); Docs: 12; Journals: 5; Conferences: 7; Citations: 141; H-index: 5  
? 05 years (2020-2025); Docs: 12; Journals: 5; Conferences: 7; Citations: 141; H-index: 5

### Scopus Products

1.
  - ? Title: Full Tuning of Double Input Power System Stabilizers via Surrogate Optimization
  - ? Venue: 2025 IEEE Kiel Powertech Powertech 2025
  - ? Year: 2025
  - ? Type: Conference Proceeding
  - ? Subtype: Conference Paper
  - ? Citations: 0
  - ? DOI: 10.1109/PowerTech59965.2025.11180292
  - ? Scopus ID: 2-s2.0-105019317119
  - ? Authors: MacCì G.; Massucco S.; Natrella G.; Saviozzi M.; Conte F.; Giannuzzi G.; Tessitore S.
  - ? Keywords: Double Input Power System Stabilizer | Optimal Tuning | Power System Stabilizer
  - ? Source Id: 21101341419
  - ? Author Ids: 60150796500;6603357712;57638571300;56027556100;57151673600;25936117900;57211384304
  - ? Authoraffiliationids: 60025153;60025153;60025153;60025153;60005308;60122257;60122257
  - ? Corresponding: MacCì G.
2.
  - ? Title: Optimal Sizing and Operations of a Hydrogen-Based Multi-Energy Port System with Market Participation and Gas Grid Integration
  - ? Venue: Conference Proceedings 2025 IEEE International Conference on Environment and Electrical Engineering and 2025 IEEE Industrial and Commercial Power Systems Europe Eeeic I and Cps Europe 2025
  - ? Year: 2025
  - ? Type: Conference Proceeding

? Subtype: Conference Paper  
? Citations: 0  
? DOI: 10.1109/EEEIC/ICPSEurope64998.2025.11169295  
? Scopus ID: 2-s2.0-105019039502  
? Authors: Carcasci Carlo; Conte Francesco; D'Agostino Fabio; Guzzo Gabriele; Natrella Gianluca; Saviozzi Matteo  
? Keywords: energy markets | gas network | Hydrogen | multi-energy system | port energy management  
? Source Id: 21101340466  
? Author Ids: 6701748483;57151673600;56553864200;57224441656;57638571300;56027556100  
? Authoraffiliationids: 60021859;108398862;60025153;60021859;60025153;60025153  
? Corresponding: Carcasci C.

3.

? Title: Experimental Validation of Electrothermal and Aging Parameter Identification for Lithium-Ion Batteries  
? Venue: Energies  
? Year: 2024  
? Type: Journal  
? Subtype: Article  
? Citations: 1  
? DOI: 10.3390/en17102269  
? Scopus ID: 2-s2.0-85194402635  
? eISSN: 19961073  
? Volume: 17  
? Issue: 10  
? Authors: Conte Francesco; Giallongo Marco; Kaza Daniele; Natrella Gianluca; Tachibana Ryohei; Tsuji Shinji; Silvestro Federico; Vichi Giovanni  
? Keywords: Li-ion battery degradation | parameter identification | performance and lifetime prediction | semi-empirical model  
? Quartile:  
2025:  
? Control and Optimization (Q1, rank 11, percentile 94)  
? Engineering (miscellaneous) (Q1, rank 38, percentile 86)  
? Electrical and Electronic Engineering (Q1, rank 155, percentile 84)  
? Energy Engineering and Power Technology (Q1, rank 71, percentile 78)  
? Fuel Technology (Q2, rank 40, percentile 70)  
? Renewable Energy, Sustainability and the Environment (Q2, rank 110, percentile 64)  
? Energy (miscellaneous) (Q2, rank 39, percentile 64)  
2024:  
? Control and Optimization (Q1, rank 15, percentile 90)  
? Engineering (miscellaneous) (Q1, rank 39, percentile 85)  
? Electrical and Electronic Engineering (Q1, rank 173, percentile 82)  
? Energy Engineering and Power Technology (Q1, rank 73, percentile 75)  
? Fuel Technology (Q2, rank 38, percentile 71)  
? Energy (miscellaneous) (Q2, rank 32, percentile 68)  
? Renewable Energy, Sustainability and the Environment (Q2, rank 105, percentile 64)  
? Source Id: 62932  
? Author Ids: 57151673600;57854283800;57218924925;57638571300;59147313600;59146680100;23026343700;57210078993  
? Authoraffiliationids: 60005308;118019107;60025153;60025153;126155770;126155770;60025153;118019107  
? Corresponding: Conte F.

4.

? Title: Enhancing Management and Control of Renewable Energy Communities: A Practical

## Implementation

? Venue: 2024 3rd International Conference on Energy Transition in the Mediterranean Area Synergy MED 2024  
? Year: 2024  
? Type: Conference Proceeding  
? Subtype: Conference Paper  
? Citations: 0  
? DOI: 10.1109/SyNERGYMED62435.2024.10799371  
? Scopus ID: 2-s2.0-85215549109  
? Authors: Di Fazio A. R.; Conte F.; Natrella G.  
? Keywords: Battery Energy Storage Systems | Experimental Validation | Model Predictive Control | PV Systems | Renewable Energy Community | Software-in-the-Loop Simulation  
? Source Id: 21101270338  
? Author Ids: 24437779200;57151673600;57638571300  
? Authoraffiliationids: 600017111;60005308;60025153  
? Corresponding: Di Fazio A.R.

5.

? Title: Day-Ahead Programming of Energy Communities Participating in Pay-as-Bid Service Markets  
? Venue: IEEE Power and Energy Society General Meeting  
? Year: 2024  
? Type: Conference Proceeding  
? Subtype: Conference Paper  
? Citations: 0  
? Doi: 10.1109/Pesgm51994.2024.10688872  
? Scopus ID: 2-s2.0-85207428013  
? Issn: 19449925  
? eISSN: 19449933  
? Authors: Conte F.; Massucco S.; Natrella G.; Saviozzi M.; Silvestro F.  
? Keywords: day-ahead programming | Renewable Energy Community | scenario-based optimization | service market  
? Quartile:  
2025:  
? Electrical and Electronic Engineering (Q3, rank 622, percentile 37)  
? Nuclear Energy and Engineering (Q3, rank 53, percentile 37)  
? Energy Engineering and Power Technology (Q3, rank 208, percentile 36)  
? Renewable Energy, Sustainability and the Environment (Q3, rank 232, percentile 25)  
2024:  
? Nuclear Energy and Engineering (Q3, rank 53, percentile 34)  
? Electrical and Electronic Engineering (Q3, rank 682, percentile 29)  
? Energy Engineering and Power Technology (Q3, rank 215, percentile 28)  
? Renewable Energy, Sustainability and the Environment (Q4, rank 238, percentile 20)  
? Source Id: 20600195623  
? Author Ids: 57151673600;6603357712;57638571300;56027556100;23026343700  
? Authoraffiliationids: 60005308;60025153;60025153;60025153;60025153  
? Corresponding: Conte F.

6.

? Title: Modelling and optimal management of renewable energy communities using reversible solid oxide cells  
? Venue: Applied Energy  
? Year: 2023  
? Type: Journal  
? Subtype: Article  
? Citations: 46

? DOI: 10.1016/j.apenergy.2023.120657

? Scopus ID: 2-s2.0-85146670642

? Issn: 03062619

? Volume: 334

? Authors: Bianchi F. R.; Bosio B.; Conte F.; Massucco S.; Mosaico G.; Natrella G.; Saviozzi M.

? Keywords: Green Hydrogen | Renewable Energy Communities | Reversible Solid Oxide Cells | Stochastic Model Predictive Control

? Quartile:

2025:

? Management, Monitoring, Policy and Law (Q1, rank 6, percentile 98)

? Mechanical Engineering (Q1, rank 14, percentile 98)

? Building and Construction (Q1, rank 5, percentile 98)

? Energy (all) (Q1, rank 5, percentile 94)

? Renewable Energy, Sustainability and the Environment (Q1, rank 22, percentile 93)

2023:

? Building and Construction (Q1, rank 1, percentile 99)

? Management, Monitoring, Policy and Law (Q1, rank 5, percentile 98)

? Mechanical Engineering (Q1, rank 12, percentile 98)

? Energy (all) (Q1, rank 4, percentile 95)

? Renewable Energy, Sustainability and the Environment (Q1, rank 15, percentile 94)

? Source Id: 28801

? Author Ids:

57214116004;55888255600;57151673600;6603357712;57208723957;57638571300;56027556100

? Authoraffiliationids: 60025153;60025153;60005308;60025153;60025153;60025153;60025153

? Corresponding: Bianchi F.R.

7.

? Title: A new hybrid AI optimal management method for renewable energy communities

? Venue: Energy and AI

? Year: 2022

? Type: Journal

? Subtype: Article

? Citations: 47

? DOI: 10.1016/j.egyai.2022.100197

? Scopus ID: 2-s2.0-85136013988

? eISSN: 26665468

? Volume: 10

? Authors: Conte Francesco; D'Antoni Federico; Natrella Gianluca; Merone Mario

? Keywords: Artificial Intelligence | Battery Energy Storage System management | Deep learning | Model Predictive Control | Renewable Energy Community

? Quartile:

2025:

? Engineering (miscellaneous) (Q1, rank 11, percentile 96)

? Artificial Intelligence (Q1, rank 37, percentile 92)

? Energy (all) (Q1, rank 8, percentile 90)

2022:

? Engineering (miscellaneous) (Q1, rank 8, percentile 95)

? Artificial Intelligence (Q1, rank 35, percentile 88)

? Energy (all) (Q1, rank 10, percentile 86)

? Source Id: 21101047378

? Author Ids: 57151673600;59170855000;57638571300;56102657200

? Authoraffiliationids: 60005308;60005308;60025153;60005308

? Corresponding: Conte F.

8.

? Title: Exergetic Analysis of DME Synthesis from CO2 and Renewable Hydrogen  
 ? Venue: Energies  
 ? Year: 2022  
 ? Type: Journal  
 ? Subtype: Article  
 ? Citations: 12  
 ? DOI: 10.3390/en15103516  
 ? Scopus ID: 2-s2.0-85130515093  
 ? eISSN: 19961073  
 ? Volume: 15  
 ? Issue: 10  
 ? Authors: De Falco Marcello; Natrella Gianluca; Capocelli Mauro; Popielak Paulina; So?tysik Marcelina; Wawrzy?czak Dariusz; Majchrzak-Kuc?ba Izabela  
 ? Keywords: carbon capture and utilization | exergy analysis | methanol and DME production  
 ? Quartile:  
 2025:  
 ? Control and Optimization (Q1, rank 11, percentile 94)  
 ? Engineering (miscellaneous) (Q1, rank 38, percentile 86)  
 ? Electrical and Electronic Engineering (Q1, rank 155, percentile 84)  
 ? Energy Engineering and Power Technology (Q1, rank 71, percentile 78)  
 ? Fuel Technology (Q2, rank 40, percentile 70)  
 ? Renewable Energy, Sustainability and the Environment (Q2, rank 110, percentile 64)  
 ? Energy (miscellaneous) (Q2, rank 39, percentile 64)  
 2022:  
 ? Control and Optimization (Q1, rank 21, percentile 83)  
 ? Engineering (miscellaneous) (Q1, rank 27, percentile 82)  
 ? Electrical and Electronic Engineering (Q2, rank 197, percentile 73)  
 ? Energy Engineering and Power Technology (Q2, rank 77, percentile 69)  
 ? Energy (miscellaneous) (Q2, rank 18, percentile 67)  
 ? Fuel Technology (Q2, rank 39, percentile 67)  
 ? Renewable Energy, Sustainability and the Environment (Q2, rank 103, percentile 56)  
 ? Source Id: 62932  
 ? Author Ids:  
 22940372300;57638571300;57105937300;57703435700;57217081924;35301378800;56292151900  
 ? Authoraffiliationids: 60005308;60025153;60005308;60009913;60009913;60009913;60009913  
 ? Corresponding: De Falco M.

9.

? Title: Methods and Tools for the Management of Renewable Energy Communities: the ComER project  
 ? Venue: 2022 Aeit International Annual Conference Aeit 2022  
 ? Year: 2022  
 ? Type: Conference Proceeding  
 ? Subtype: Conference Paper  
 ? Citations: 4  
 ? Doi: 10.23919/Aeit56783.2022.9951776  
 ? Scopus ID: 2-s2.0-85143587755  
 ? Authors: Rita Di Fazio Anna; Losi Arturo; Russo Mario; Cacace Filippo; Conte Francesco; Iannello Giulio; Natrella Gianluca; Saviozzi Matteo  
 ? Keywords: Energy Communities | Renewables | Self-Consumption Management and Control  
 ? Source Id: 21101125262  
 ? Author Ids: 24437779200;7004596459;56186338900;12239653700;57151673600;6701387714;57638571300;56027556100  
 ? Authoraffiliationids:

60001711;60001711;60001711;60005308;60005308;60005308;60025153;60025153

? Corresponding: Rita Di Fazio A.

10.

? Title: Optimal Management of a Smart Port with Shore-Connection and Hydrogen Supplying by Stochastic Model Predictive Control

? Venue: IEEE Power and Energy Society General Meeting

? Year: 2022

? Type: Conference Proceeding

? Subtype: Conference Paper

? Citations: 17

? Doi: 10.1109/Pesgm48719.2022.9916817

? Scopus ID: 2-s2.0-85141492983

? Issn: 19449925

? eISSN: 19449933

? Volume: 2022-July

? Authors: Conte F.; D'Agostino F.; Kaza D.; Massucco S.; Natrella G.; Silvestro F.

? Keywords: Cold-Ironing | Hydrogen | Multi-Energy Systems | Smart Port | Stochastic Model Predictive Control

? Quartile:

2025:

? Electrical and Electronic Engineering (Q3, rank 622, percentile 37)

? Nuclear Energy and Engineering (Q3, rank 53, percentile 37)

? Energy Engineering and Power Technology (Q3, rank 208, percentile 36)

? Renewable Energy, Sustainability and the Environment (Q3, rank 232, percentile 25)

? Source Id: 20600195623

? Author Ids: 57151673600;56553864200;57218924925;6603357712;57638571300;23026343700

? Authoraffiliationids: 60005308;60025153;60025153;60025153;60025153;60025153

? Corresponding: Conte F.

11.

? Title: Optimal Management of Renewable Generation and Uncertain Demand with Reverse Fuel Cells by Stochastic Model Predictive Control

? Venue: 2022 17th International Conference on Probabilistic Methods Applied to Power Systems Pmaps 2022

? Year: 2022

? Type: Conference Proceeding

? Subtype: Conference Paper

? Citations: 4

? Doi: 10.1109/Pmaps53380.2022.9810605

? Scopus ID: 2-s2.0-85135098261

? Authors: Conte F.; Mosaico G.; Natrella G.; Saviozzi M.; Bianchi F. R.

? Keywords: Fuel Cells | Hydrogen | Renewable Energy Communities | Stochastic Model Predictive Control

? Source Id: 21101098702

? Author Ids: 57151673600;57208723957;57638571300;56027556100;57214116004

? Authoraffiliationids: 60005308;60025153;60025153;60025153;60025153

? Corresponding: Conte F.

12.

? Title: How to give a renewed chance to natural gas as feed for the production of hydrogen: Electric MSR coupled with CO2 mineralization

? Venue: Cleaner Engineering and Technology

? Year: 2021

? Type: Journal

? Subtype: Article

? Citations: 10

? DOI: 10.1016/j.clet.2021.100280

? Scopus ID: 2-s2.0-85116057808

? eISSN: 26667908

? Volume: 5

? Authors: Natrella Gianluca; Borgogna Alessia; Salladini Annarita; Iaquaniello Gaetano

? Keywords: CO2 mineralization | Electrical methane steam reforming | Hydrogen production | Water electrolysis

? Quartile:

2025:

? Engineering (miscellaneous) (Q1, rank 17, percentile 94)

? Environmental Engineering (Q1, rank 20, percentile 91)

2021:

? Engineering (miscellaneous) (Q3, rank 80, percentile 30)

? Environmental Engineering (Q3, rank 127, percentile 26)

? Source Id: 21101059780

? Author Ids: 57638571300;57194685941;36698159700;6603152491

? Authoraffiliationids: 60005308;123658660;123658660;60005308-123658660-126966040

? Corresponding: Natrella G.