

OLIVERI ALBERTO

Overview

- ? Unit: ICT
- ? Role: Professore associato
- ? Grade: Prof.Associato Legge 240/10 - t.pieno - classe 2
- ? SSD: IIET-01/A (Elettrotecnica)
- ? Scopus ID: 57200399832
- ? Unige Id: 282713
- ? Retrieved at: 2025-11-14T15:16:09.282297

Contact

- ? Email: alberto.oliveri@unige.it
- ? Phone: +39 010 33 52691
- ? Page: <https://rubrica.unige.it/personale/V0tFXFtq>
- ? Locations: Opera Pia - padiglione D (ED161450401), 2° piano, US161450401.II.026

Career

- ? Ar, 2013-01-02 ? 2015-01-01
- ? Cb, 2013-05-29 ? 2013-09-20
- ? Rd, 2015-06-01 ? 2020-10-31
- ? Pa, 2020-11-01 ? 2222-02-02

Teaching

2025

- ? Circuits And Systems (114620), L-8 - Ingegneria Informatica
- ? Teoria Dei Circuiti (80646), L-8 - Ingegneria Elettronica E Tecnologie Dell'Informazione
- ? Elettrotecnica (Ch) (66016), L-9 - Ingegneria Chimica E Di Processo
- ? Elementi Di Elettrotecnica (107805), L-P03 - Tecnologie Industriali
- ? Power Management (114760), Lm-29 - Electronic Engineering
- ? Power Management (114760), Lm-29 - Electronic Engineering
- ? Nonlinear Circuits And Systems (114762), Lm-29 - Electronic Engineering

2024

- ? Teoria Dei Circuiti (94975), L-8 - Ingegneria Informatica
- ? Elettrotecnica (66016), L-9 - Ingegneria Chimica E Di Processo
- ? Elementi Di Elettrotecnica (107805), L-P03 - Tecnologie Industriali
- ? Nonlinear Circuits And Systems (114762), Lm-29 - Electronic Engineering

2023

- ? Teoria Dei Circuiti (94975), L-8 - Ingegneria Informatica
- ? Applied Mathematical Modelling (106779), Lm-29 - Ingegneria Elettronica
- ? Elettrotecnica (Ch) (66016), L-9 - Ingegneria Chimica E Di Processo
- ? Elementi Di Elettrotecnica (107805), L-P03 - Tecnologie Industriali

2022

- ? Teoria Dei Circuiti (94975), L-8 - Ingegneria Informatica
- ? Applied Mathematical Modelling (106779), Lm-29 - Ingegneria Elettronica
- ? Elettrotecnica (Ch) (66016), L-9 - Ingegneria Chimica E Di Processo
- ? Elementi Di Elettrotecnica (107805), L-P03 - Tecnologie Industriali

2021

- ? Elettromagnetismo E Teoria Dei Circuiti Modulo 2: Teoria Dei Circuiti (94975), L-8 - Ingegneria Informatica

? Applied Mathematical Modelling (106779), Lm-29 - Ingegneria Elettronica
? Elettrotecnica (Ch) (66016), L-9 - Ingegneria Chimica E Di Processo

2020

? Applied Mathematical Modelling (90607), Lm-29 - Ingegneria Elettronica
? Elettrotecnica (Ch) (66016), L-9 - Ingegneria Chimica E Di Processo
? Mathematical Methods For Engineers (104823), Lm-21 - Bioengineering

Scopus Metrics

? absolute; Docs: 64; Journals: 27; Conferences: 36; Citations: 793; H-index: 16
? 15 years (2010-2025); Docs: 63; Journals: 27; Conferences: 35; Citations: 763; H-index: 16
? 10 years (2015-2025); Docs: 50; Journals: 23; Conferences: 26; Citations: 522; H-index: 13
? 05 years (2020-2025); Docs: 22; Journals: 10; Conferences: 11; Citations: 123; H-index: 6

Scopus Products

1.

? Title: Synthetic inertia estimation in the presence of measurement noise and delays: An application to wind turbine generators
? Venue: International Journal of Electrical Power and Energy Systems
? Year: 2025
? Type: Journal
? Subtype: Article
? Citations: 0
? DOI: 10.1016/j.ijepes.2025.110511
? Scopus ID: 2-s2.0-85217714961
? Issn: 01420615
? Volume: 166
? Authors: Baruzzi Valentina; Rosini Alessandro; Lodi Matteo; Bonfiglio Andrea; Oliveri Alberto
? Keywords: Real-time simulations | Synthetic inertia | Wind turbine generator
? Quartile:
2025:
? Electrical and Electronic Engineering (Q1, rank 57, percentile 94)
? Energy Engineering and Power Technology (Q1, rank 25, percentile 92)
? Source Id: 17985
? Author Ids: 57216455935;57204050700;57200266678;36607521000;57200399832
? Authoraffiliationids: 60025153;60025153;60025153;60025153;60025153
? Corresponding: Baruzzi V.

2.

? Title: FPGA Implementation of Nonlinear Model Predictive Control for a Boost Converter with a Partially Saturating Inductor
? Venue: Electronics Switzerland
? Year: 2025
? Type: Journal
? Subtype: Article
? Citations: 1
? DOI: 10.3390/electronics14050941
? Scopus ID: 2-s2.0-86000650676
? eISSN: 20799292
? Volume: 14
? Issue: 5

? Authors: Ravera Alessandro; Oliveri Alberto; Lodi Matteo; Storace Marco
? Keywords: magnetic saturation | nonlinear model predictive control | switched mode power supply
? Quartile:
2025:
? Signal Processing (Q1, rank 36, percentile 81)
? Electrical and Electronic Engineering (Q1, rank 220, percentile 78)
? Control and Systems Engineering (Q1, rank 91, percentile 76)
? Computer Networks and Communications (Q1, rank 131, percentile 76)
? Hardware and Architecture (Q2, rank 62, percentile 73)
? Source Id: 21100829272
? Author Ids: 57214792545;57200399832;57200266678;7004134087
? Authoraffiliationids: 60025153;60025153;60025153;60025153
? Corresponding: Ravera A.

- 3.
- ? Title: Modeling Amorphous-Core Inductors up to Magnetic Saturation
? Venue: IEEE Transactions on Power Electronics
? Year: 2025
? Type: Journal
? Subtype: Article
? Citations: 5
? Doi: 10.1109/Tpel.2024.3463803
? Scopus ID: 2-s2.0-85204943092
? Issn: 08858993
? eISSN: 19410107
? Volume: 40
? Issue: 1
? Pages: 1563-1576
? Authors: Ravera Alessandro; Oliveri Alberto; Lodi Matteo; Beatrice Cinzia; Ferrara Enzo; Fiorillo Fausto; Storace Marco
? Keywords: Amorphous core | magnetic saturation | nonlinear circuit model | power inductor
? Quartile:
2025:
? Electrical and Electronic Engineering (Q1, rank 50, percentile 95)
? Source Id: 26055
? Author Ids: 57214792545;57200399832;57200266678;7004523868;56211874000;7006013405;7004134087
? Authoraffiliationids: 60025153;60025153;60025153;60073835;60073835;60073835;60025153
? Corresponding: Ravera A.

- 4.
- ? Title: Low-Level Simulation of a Grid-Following Inverter with Synthetic Inertia
? Venue: 2025 Aeit Hvdc International Conference Aeit Hvdc 2025
? Year: 2025
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 0
? Doi: 10.1109/Aeithvdc66044.2025.11079533
? Scopus ID: 2-s2.0-105012573490
? Authors: Lodi M.; Oliveri A.; Saviozzi M.; Conte F.; Baggi P.
? Keywords: Commercial inverter | inverter modeling | Synthetic inertia
? Source Id: 21101318126
? Author Ids: 57200266678;57200399832;56027556100;57151673600;60030400500
? Authoraffiliationids: 60025153;60025153;60025153;60005308;132941234

? Corresponding: Lodi M.

5.

? Title: A black-box approach for generating surrogate data for an amorphous-core inductor working up to magnetic saturation

? Venue: Proceedings IEEE International Symposium on Circuits and Systems

? Year: 2025

? Type: Conference Proceeding

? Subtype: Conference Paper

? Citations: 0

? Doi: 10.1109/lscas56072.2025.11043328

? Scopus ID: 2-s2.0-105010594000

? Issn: 02714310

? Authors: Ravera Alessandro; Baazaoui Sofien; Lodi Matteo; Oliveri Alberto; Storace Marco

? Quartile:

2025:

? Electrical and Electronic Engineering (Q3, rank 652, percentile 34)

? Source Id: 56190

? Author Ids: 57214792545;59332602300;57200266678;57200399832;7004134087

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

? Corresponding: Ravera A.

6.

? Title: Design, realization and testing of a synthetic inertia controller for wind turbine power generators

? Venue: Sustainable Energy Grids and Networks

? Year: 2024

? Type: Journal

? Subtype: Article

? Citations: 7

? DOI: 10.1016/j.segan.2023.101234

? Scopus ID: 2-s2.0-85183574846

? eISSN: 23524677

? Volume: 38

? Authors: Bonfiglio Andrea; Lodi Matteo; Rosini Alessandro; Oliveri Alberto; Procopio Renato

? Keywords: FPGA | Synthetic inertia | Wind turbine generator

? Quartile:

2025:

? Electrical and Electronic Engineering (Q1, rank 131, percentile 86)

? Control and Systems Engineering (Q1, rank 52, percentile 86)

? Energy Engineering and Power Technology (Q1, rank 63, percentile 80)

? Renewable Energy, Sustainability and the Environment (Q2, rank 90, percentile 71)

2024:

? Electrical and Electronic Engineering (Q1, rank 122, percentile 87)

? Control and Systems Engineering (Q1, rank 52, percentile 86)

? Energy Engineering and Power Technology (Q1, rank 53, percentile 82)

? Renewable Energy, Sustainability and the Environment (Q2, rank 77, percentile 74)

? Source Id: 21100371258

? Author Ids: 36607521000;57200266678;57204050700;57200399832;7801615894

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

? Corresponding: Bonfiglio A.

7.

? Title: A Comparative Analysis of Different Virtual Inertia Controllers in Power Grids with Renewable Energy Sources

? Venue: 2024 IEEE Workshop on Complexity in Engineering Compeng 2024
? Year: 2024
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 0
? Doi: 10.1109/Compeng60905.2024.10741407
? Scopus ID: 2-s2.0-85212196186
? Authors: Ahmadimonfared Zahra; Lodi Matteo; Oliveri Alberto; Storace Marco
? Source Id: 21101264268
? Author Ids: 59474072200;57200266678;57200399832;7004134087
? Authoraffiliationids: 60025153;60025153;60025153;60025153
? Corresponding: Ahmadimonfared Z.

8.

? Title: Modeling the Effect of Air-Gap Length and Number of Turns on Ferrite-Core Inductors Working up to Magnetic Saturation in a Buck Converter
? Venue: IEEE Transactions on Circuits and Systems I Regular Papers
? Year: 2024
? Type: Journal
? Subtype: Article
? Citations: 5
? Doi: 10.1109/Tcsi.2024.3421261
? Scopus ID: 2-s2.0-85204943069
? Issn: 15498328
? eISSN: 15580806
? Volume: 71
? Issue: 12
? Pages: 5400-5409
? Authors: Ravera Alessandro; Formentini Andrea; Lodi Matteo; Oliveri Alberto; Passalacqua Massimiliano; Storace Marco
? Keywords: gapped ferrite core | magnetic saturation | nonlinear circuit model | Power inductor
? Quartile:
2025:
? Engineering (all) (Q1, rank 28, percentile 92)
2024:
? Engineering (all) (Q1, rank 24, percentile 93)
? Source Id: 11000153733
? Author Ids: 57214792545;55370605300;57200266678;57200399832;57195070159;7004134087
? Authoraffiliationids: 60025153;60025153;60025153;60025153;60025153;60025153
? Corresponding: Ravera A.

9.

? Title: A nonlinear model of air-gapped ferrite-core inductors for SMPS applications
? Venue: Proceedings IEEE International Symposium on Circuits and Systems
? Year: 2024
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 1
? Doi: 10.1109/Iscas58744.2024.10558476
? Scopus ID: 2-s2.0-85198514654
? Issn: 02714310
? Authors: Ravera Alessandro; Formentini Andrea; Lodi Matteo; Oliveri Alberto; Storace Marco
? Quartile:
2025:

- ? Electrical and Electronic Engineering (Q3, rank 652, percentile 34)
2024:
? Electrical and Electronic Engineering (Q3, rank 537, percentile 44)
? Source Id: 56190
? Author Ids: 57214792545;55370605300;57200266678;57200399832;7004134087
? Authoraffiliationids: 60025153;60025153;60025153;60025153;60025153
? Corresponding: Ravera A.
10.
? Title: Co-Design of a Controller and Its Digital Implementation: The MOBY-DIC2 Toolbox for Embedded Model Predictive Control
? Venue: IEEE Transactions on Control Systems Technology
? Year: 2023
? Type: Journal
? Subtype: Article
? Citations: 5
? Doi: 10.1109/Tcst.2023.3254133
? Scopus ID: 2-s2.0-85151336066
? Issn: 10636536
? eISSN: 15580865
? Volume: 31
? Issue: 6
? Pages: 2871-2878
? Authors: Ravera Alessandro; Oliveri Alberto; Lodi Matteo; Bemporad Alberto; Heemels W. P.M.H.; Kerrigan Eric C.; Storace Marco
? Keywords: Embedded model predictive control (MPC) | field programmable gate array (FPGA) | hardware-software co-design
? Quartile:
2025:
? Control and Systems Engineering (Q1, rank 34, percentile 91)
? Electrical and Electronic Engineering (Q1, rank 96, percentile 90)
2023:
? Control and Systems Engineering (Q1, rank 31, percentile 90)
? Electrical and Electronic Engineering (Q1, rank 82, percentile 89)
? Source Id: 17342
? Author Ids:
57214792545;57200399832;57200266678;7005030586;7004095044;57200653945;7004134087
? Authoraffiliationids: 60025153;60025153;60025153;60102060;60032882;60015150;60025153
? Corresponding: Ravera A.
11.
? Title: Use of a Partially Saturating Inductor in a Boost Converter with Model Predictive Control
? Venue: Electronics Switzerland
? Year: 2023
? Type: Journal
? Subtype: Article
? Citations: 6
? DOI: 10.3390/electronics12143013
? Scopus ID: 2-s2.0-85166222674
? eISSN: 20799292
? Volume: 12
? Issue: 14
? Authors: Firpo Pietro; Ravera Alessandro; Oliveri Alberto; Lodi Matteo; Storace Marco
? Keywords: magnetic saturation | nonlinear model predictive control | switched mode power supply

? Quartile:

2025:

- ? Signal Processing (Q1, rank 36, percentile 81)
- ? Electrical and Electronic Engineering (Q1, rank 220, percentile 78)
- ? Control and Systems Engineering (Q1, rank 91, percentile 76)
- ? Computer Networks and Communications (Q1, rank 131, percentile 76)
- ? Hardware and Architecture (Q2, rank 62, percentile 73)

2023:

- ? Control and Systems Engineering (Q2, rank 94, percentile 70)
 - ? Electrical and Electronic Engineering (Q2, rank 244, percentile 69)
 - ? Computer Networks and Communications (Q2, rank 139, percentile 64)
 - ? Hardware and Architecture (Q2, rank 64, percentile 64)
 - ? Signal Processing (Q2, rank 49, percentile 62)
- ? Source Id: 21100829272
- ? Author Ids: 58512300500;57214792545;57200399832;57200266678;7004134087
- ? Authoraffiliationids: 60025153;60025153;60025153;60025153;60025153
- ? Corresponding: Firpo P.

12.

- ? Title: MADS-based fast FPGA implementation of nonlinear model predictive control
- ? Venue: Proceedings IEEE International Symposium on Circuits and Systems
- ? Year: 2023
- ? Type: Conference Proceeding
- ? Subtype: Conference Paper
- ? Citations: 4
- ? Doi: 10.1109/lscas46773.2023.10181647
- ? Scopus ID: 2-s2.0-85166261084
- ? Issn: 02714310
- ? Volume: 2023-May
- ? Authors: Ravera Alessandro; Oliveri Alberto; Lodi Matteo; Storace Marco
- ? Keywords: FPGA | mesh adaptive direct search | nonlinear model predictive control

? Quartile:

2025:

- ? Electrical and Electronic Engineering (Q3, rank 652, percentile 34)

2023:

- ? Electrical and Electronic Engineering (Q3, rank 496, percentile 37)

? Source Id: 56190

? Author Ids: 57214792545;57200399832;57200266678;7004134087

? Authoraffiliationids: 60025153;60025153;60025153;60025153

? Corresponding: Ravera A.

13.

- ? Title: A nonlinear behavioral model of a ferrite-core inductor with fixed-frequency sinusoidal voltage input
- ? Venue: Eurocon 2023 20th International Conference on Smart Technologies Proceedings
- ? Year: 2023
- ? Type: Conference Proceeding
- ? Subtype: Conference Paper
- ? Citations: 8
- ? Doi: 10.1109/Eurocon56442.2023.10199021
- ? Scopus ID: 2-s2.0-85166236237
- ? Pages: 418-422
- ? Authors: Ravera Alessandro; Oliveri Alberto; Lodi Matteo; Storace Marco
- ? Source Id: 21101173014
- ? Author Ids: 57214792545;57200399832;57200266678;7004134087
- ? Authoraffiliationids: 60025153;60025153;60025153;60025153

- ? Corresponding: Ravera A.
- 14.
- ? Title: Embedded Implementation of an Algorithm for Online Inertia Estimation in Power Grids
- ? Venue: Lecture Notes in Networks and Systems
- ? Year: 2023
- ? Type: Book Series
- ? Subtype: Conference Paper
- ? Citations: 0
- ? Doi: 10.1007/978-3-031-16281-7_9
- ? Scopus ID: 2-s2.0-85137974665
- ? Issn: 23673370
- ? eISSN: 23673389
- ? Volume: 546 Lnns
- ? Pages: 84-94
- ? Authors: Ravera Alessandro; Baruzzi Valentina; Lodi Matteo; Oliveri Alberto; Storace Marco
- ? Keywords: Inertia estimation | Microcontroller | Renewable energy sources
- ? Quartile:
- 2025:
- ? Signal Processing (Q3, rank 146, percentile 25)
- ? Computer Networks and Communications (Q3, rank 410, percentile 25)
- ? Control and Systems Engineering (Q4, rank 302, percentile 20)
- 2023:
- ? Signal Processing (Q4, rank 113, percentile 14)
- ? Control and Systems Engineering (Q4, rank 277, percentile 13)
- ? Computer Networks and Communications (Q4, rank 354, percentile 10)
- ? Source Id: 21100901469
- ? Author Ids: 57214792545;57216455935;57200266678;57200399832;7004134087
- ? Authoraffiliationids: 60025153;60025153;60025153;60025153;60025153
- ? Corresponding: Ravera A.
- 15.
- ? Title: Behavioral model of an amorphous-core inductor working up to partial saturation
- ? Venue: Proceedings IEEE International Symposium on Circuits and Systems
- ? Year: 2022
- ? Type: Conference Proceeding
- ? Subtype: Conference Paper
- ? Citations: 6
- ? Doi: 10.1109/lscas48785.2022.9937208
- ? Scopus ID: 2-s2.0-85142507089
- ? Issn: 02714310
- ? Volume: 2022-May
- ? Pages: 1522-1526
- ? Authors: Oliveri Alberto; Lodi Matteo; Beatrice Cinzia; Ferrara Enzo; Storace Marco; Fiorillo Fausto
- ? Quartile:
- 2025:
- ? Electrical and Electronic Engineering (Q3, rank 652, percentile 34)
- 2022:
- ? Electrical and Electronic Engineering (Q3, rank 476, percentile 35)
- ? Source Id: 56190
- ? Author Ids: 57200399832;57200266678;7004523868;56211874000;7004134087;7006013405
- ? Authoraffiliationids: 60025153;60025153;60073835;60073835;60025153;60073835

? Corresponding: Oliveri A.

16.

? Title: Estimation of inertia in power grids with turbine governors
? Venue: Proceedings IEEE International Symposium on Circuits and Systems
? Year: 2022
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 1
? Doi: 10.1109/lscas48785.2022.9937504
? Scopus ID: 2-s2.0-85133619628
? Issn: 02714310
? Volume: 2022-May
? Pages: 819-823
? Authors: Baruzzi Valentina; Lodi Matteo; Oliveri Alberto; Storace Marco
? Quartile:
2025:
? Electrical and Electronic Engineering (Q3, rank 652, percentile 34)
2022:
? Electrical and Electronic Engineering (Q3, rank 476, percentile 35)
? Source Id: 56190
? Author Ids: 57216455935;57200266678;57200399832;7004134087
? Authoraffiliationids: 60025153;60025153;60025153;60025153
? Corresponding: Baruzzi V.

17.

? Title: Nonlinear models of power inductors: A survey
? Venue: International Journal of Circuit Theory and Applications
? Year: 2022
? Type: Journal
? Subtype: Article
? Citations: 35
? DOI: 10.1002/cta.3147
? Scopus ID: 2-s2.0-85116803994
? Issn: 00989886
? eISSN: 1097007X
? Volume: 50
? Issue: 1
? Pages: 2-34
? Authors: Oliveri Alberto; Lodi Matteo; Storace Marco
? Quartile:
2025:
? Applied Mathematics (Q2, rank 183, percentile 72)
? Electrical and Electronic Engineering (Q2, rank 422, percentile 57)
? Computer Science Applications (Q2, rank 471, percentile 52)
? Electronic, Optical and Magnetic Materials (Q3, rank 170, percentile 45)
2022:
? Applied Mathematics (Q1, rank 145, percentile 76)
? Computer Science Applications (Q2, rank 361, percentile 54)
? Electrical and Electronic Engineering (Q2, rank 337, percentile 54)
? Electronic, Optical and Magnetic Materials (Q3, rank 143, percentile 47)
? Source Id: 17963
? Author Ids: 57200399832;57200266678;7004134087
? Authoraffiliationids: 60025153;60025153;60025153
? Corresponding: Oliveri A.

18.

? Title: Towards a framework for nonlinear predictive control using derivative-free optimization
? Venue: IFAC Papersonline
? Year: 2021
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 5
? DOI: 10.1016/j.ifacol.2021.08.558
? Scopus ID: 2-s2.0-85117934996
? eISSN: 24058963
? Volume: 54
? Issue: 6
? Pages: 284-289
? Authors: McInerney Ian; Nita Lucian; Nie Yuanbo; Oliveri Alberto; Kerrigan Eric C.
? Keywords: Derivative-free optimization | Mesh adaptive direct search | Optimal control
? Quartile:
2025:
? Control and Systems Engineering (Q3, rank 218, percentile 42)
2021:
? Control and Systems Engineering (Q3, rank 195, percentile 29)
? Source Id: 21100456158
? Author Ids: 57204729988;36717888600;57204735031;57200399832;57200653945
? Authoraffiliationids: 60015150;60015150;60015150;60025153;60015150
? Corresponding: McInerney I.

19.
? Title: Analysis and improvement of an algorithm for the online inertia estimation in power grids with RES
? Venue: Proceedings IEEE International Symposium on Circuits and Systems
? Year: 2021
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 13
? Doi: 10.1109/lscas51556.2021.9401229
? Scopus ID: 2-s2.0-85109025103
? Issn: 02714310
? Volume: 2021-May
? Authors: Baruzzi Valentina; Lodi Matteo; Oliveri Alberto; Storace Marco
? Quartile:
2025:
? Electrical and Electronic Engineering (Q3, rank 652, percentile 34)
2021:
? Electrical and Electronic Engineering (Q3, rank 419, percentile 40)
? Source Id: 56190
? Author Ids: 57216455935;57200266678;57200399832;7004134087
? Authoraffiliationids: 60025153;60025153;60025153;60025153
? Corresponding: Baruzzi V.

20.
? Title: Online estimation of the current ripple on a saturating ferrite-core inductor in a boost converter
? Venue: Sensors Switzerland
? Year: 2020
? Type: Journal
? Subtype: Article

? Citations: 7
? DOI: 10.3390/s20102921
? Scopus ID: 2-s2.0-85085270959
? Issn: 14248220
? Volume: 20
? Issue: 10
? Authors: Lodi Matteo; Oliveri Alberto
? Keywords: Ferrite-core inductor | Magnetic saturation | Microcontroller | Nonlinear observer | Switch-mode power supply
? Quartile:

2025:

? Instrumentation (Q1, rank 19, percentile 90)
? Electrical and Electronic Engineering (Q1, rank 136, percentile 86)
? Atomic and Molecular Physics, and Optics (Q1, rank 36, percentile 85)
? Biochemistry (Q1, rank 72, percentile 84)
? Information Systems (Q1, rank 87, percentile 82)
? Analytical Chemistry (Q1, rank 30, percentile 82)

2020:

? Instrumentation (Q1, rank 13, percentile 90)
? Electrical and Electronic Engineering (Q1, rank 135, percentile 80)
? Information Systems (Q1, rank 69, percentile 79)
? Atomic and Molecular Physics, and Optics (Q1, rank 42, percentile 78)
? Analytical Chemistry (Q1, rank 29, percentile 76)
? Biochemistry (Q2, rank 133, percentile 67)

? Source Id: 130124

? Author Ids: 57200266678;57200399832

? Authoraffiliationids: 60025153;60025153

? Corresponding: Lodi M.

21.

? Title: A Nonlinear Behavioral Ferrite-Core Inductance Model Able to Reproduce Thermal Transients in Switch-Mode Power Supplies

? Venue: IEEE Transactions on Circuits and Systems I Regular Papers

? Year: 2020

? Type: Journal

? Subtype: Article

? Citations: 14

? Doi: 10.1109/TCSI.2020.2965645

? Scopus ID: 2-s2.0-85082883785

? Issn: 15498328

? eISSN: 15580806

? Volume: 67

? Issue: 4

? Pages: 1255-1263

? Authors: Lodi Matteo; Bizzarri Federico; Linaro Daniele; Oliveri Alberto; Brambilla Angelo; Storace Marco

? Keywords: Behavioral nonlinear model | magnetic saturation | power loss

? Quartile:

2025:

? Engineering (all) (Q1, rank 28, percentile 92)

2020:

? Subject (Q1, rank 106, percentile 84)

? Source Id: 11000153733

? Author Ids: 57200266678;15734590800;24587496200;57200399832;7103297302;7004134087

? Authoraffiliationids: 60025153;60023256;60023256;60025153;60023256;60025153

- ? Corresponding: Lodi M.
- 22.
- ? Title: Effects of parameter variation on the accuracy of a nonlinear inductor model for switch-mode power supplies applications
- ? Venue: Proceedings IEEE International Symposium on Circuits and Systems
- ? Year: 2020
- ? Type: Conference Proceeding
- ? Subtype: Conference Paper
- ? Citations: 0
- ? Scopus ID: 2-s2.0-85109258762
- ? Issn: 02714310
- ? Volume: 2020-October
- ? Authors: Lodi Matteo; Oliveri Alberto; Storace Marco
- ? Quartile:
- 2025:
- ? Electrical and Electronic Engineering (Q3, rank 652, percentile 34)
- 2020:
- ? Electrical and Electronic Engineering (Q2, rank 345, percentile 50)
- ? Source Id: 56190
- ? Author Ids: 57200266678;57200399832;7004134087
- ? Authoraffiliationids: 60025153;60025153;60025153
- ? Corresponding: Lodi M.
- 23.
- ? Title: Embedded linear model predictive control through mesh adaptive direct search algorithm
- ? Venue: 2019 26th IEEE International Conference on Electronics Circuits and Systems Iicecs 2019
- ? Year: 2019
- ? Type: Conference Proceeding
- ? Subtype: Conference Paper
- ? Citations: 4
- ? Doi: 10.1109/Icecs46596.2019.8964821
- ? Scopus ID: 2-s2.0-85079170519
- ? Pages: 542-545
- ? Authors: Ravera Alessandro; Oliveri Alberto; Lodi Matteo; Storace Marco
- ? Source Id: 21100944554
- ? Author Ids: 57214792545;57200399832;57200266678;7004134087
- ? Authoraffiliationids: 60025153;60025153;60025153;60025153
- ? Corresponding: Ravera A.
- 24.
- ? Title: A low-cost online estimator for switch-mode power supplies with saturating ferrite-core inductors
- ? Venue: 2019 26th IEEE International Conference on Electronics Circuits and Systems Iicecs 2019
- ? Year: 2019
- ? Type: Conference Proceeding
- ? Subtype: Conference Paper
- ? Citations: 3
- ? Doi: 10.1109/Icecs46596.2019.8964684
- ? Scopus ID: 2-s2.0-85079166716
- ? Pages: 851-854
- ? Authors: Lodi Matteo; Oliveri Alberto; Storace Marco
- ? Source Id: 21100944554
- ? Author Ids: 57200266678;57200399832;7004134087

- ? Authoraffiliationids: 60025153;60025153;60025153
? Corresponding: Lodi M.
25.
? Title: Model-based compensation of rate-dependent hysteresis in a piezoresistive strain sensor
? Venue: IEEE Transactions on Industrial Electronics
? Year: 2019
? Type: Journal
? Subtype: Article
? Citations: 41
? Doi: 10.1109/Tie.2018.2884204
? Scopus ID: 2-s2.0-85058153566
? Issn: 02780046
? Volume: 66
? Issue: 10
? Pages: 8205-8213
? Authors: Oliveri Alberto; Maselli Martina; Lodi Matteo; Storace Marco; Cianchetti Matteo
? Keywords: Conductive textile | hysteresis compensation | piezoresistive strain sensor | rate-dependent hysteresis
? Quartile:
2025:
? Electrical and Electronic Engineering (Q1, rank 33, percentile 96)
? Control and Systems Engineering (Q1, rank 17, percentile 95)
2019:
? Control and Systems Engineering (Q1, rank 3, percentile 98)
? Electrical and Electronic Engineering (Q1, rank 13, percentile 98)
? Source Id: 26053
? Author Ids: 57200399832;57195724094;57200266678;7004134087;23388237000
? Authoraffiliationids: 60025153;60028039;60025153;60025153;60028039
? Corresponding: Oliveri A.
26.
? Title: Pareto-optimal selection of saturating inductors in the design of switch-mode power supplies
? Venue: 2019 21st European Conference on Power Electronics and Applications EPE 2019 Ecce Europe
? Year: 2019
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 3
? Doi: 10.23919/Epe.2019.8915549
? Scopus ID: 2-s2.0-85076670272
? Authors: Lodi Matteo; Oliveri Alberto; Storace Marco
? Keywords: Design | Modelling | Switched-mode power supply
? Source Id: 21100939561
? Author Ids: 57200266678;57200399832;7004134087
? Authoraffiliationids: 60025153;60025153;60025153
? Corresponding: Lodi M.
27.
? Title: Behavioral Models for Ferrite-Core Inductors in Switch-Mode DC-DC Power Supplies: A Survey
? Venue: 5th International Forum on Research and Technologies for Society and Industry Innovation to Shape the Future Rtsi 2019 Proceedings
? Year: 2019

? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 14
? Doi: 10.1109/Rtsi.2019.8895593
? Scopus ID: 2-s2.0-85075639485
? Pages: 242-247
? Authors: Lodi Matteo; Oliveri Alberto; Storace Marco
? Source Id: 21100936629
? Author Ids: 57200266678;57200399832;7004134087
? Authoraffiliationids: 60025153;60025153;60025153
? Corresponding: Lodi M.

28.

? Title: A Piecewise-Affine Inductance Model for Inductors Working in Nonlinear Region
? Venue: Smacd 2019 16th International Conference on Synthesis Modeling Analysis and Simulation Methods and Applications to Circuit Design Proceedings
? Year: 2019
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 12
? Doi: 10.1109/Smacd.2019.8795270
? Scopus ID: 2-s2.0-85071587532
? Pages: 169-172
? Authors: Oliveri Alberto; Lodi Matteo; Storace Marco
? Source Id: 21100926610
? Author Ids: 57200399832;57200266678;7004134087
? Authoraffiliationids: 60025153;60025153;60025153
? Corresponding: Oliveri A.

29.

? Title: An MPC-Based approach for emergency control ensuring transient stability in power grids with steam plants
? Venue: IEEE Transactions on Industrial Electronics
? Year: 2019
? Type: Journal
? Subtype: Article
? Citations: 36
? Doi: 10.1109/Tie.2018.2870384
? Scopus ID: 2-s2.0-85054200925
? Issn: 02780046
? Volume: 66
? Issue: 7
? Pages: 5412-5422
? Authors: Bonfiglio Andrea; Cantoni Federico; Oliveri Alberto; Procopio Renato; Rosini Alessandro; Invernizzi Marco; Storace Marco
? Keywords: Constrained optimization | Model-predictive control (MPC) | Power system emergency control
? Quartile:
2025:
? Electrical and Electronic Engineering (Q1, rank 33, percentile 96)
? Control and Systems Engineering (Q1, rank 17, percentile 95)
2019:
? Control and Systems Engineering (Q1, rank 3, percentile 98)
? Electrical and Electronic Engineering (Q1, rank 13, percentile 98)
? Source Id: 26053
? Author Ids:

36607521000;57505409900;57200399832;7801615894;57204050700;6701527755;7004134087

? Authoraffiliationids:

60025153;60025153-60032170;60025153;60025153;60025153;60025153;60025153

? Corresponding: Bonfiglio A.

30.

? Title: Decentralized Second Order Sliding Mode Controller for A Storage Unit in Islanded Microgrids

? Venue: Proceedings 2019 IEEE International Conference on Environment and Electrical Engineering and 2019 IEEE Industrial and Commercial Power Systems Europe Eeeic I and Cps Europe 2019

? Year: 2019

? Type: Conference Proceeding

? Subtype: Conference Paper

? Citations: 2

? Doi: 10.1109/Eeeic.2019.8783926

? Scopus ID: 2-s2.0-85070836570

? Authors: Palmieri Alessandro; Oliveri Alberto

? Keywords: chattering alleviation | microgrid | sliding mode control | stability | storage

? Source Id: 21100924363

? Author Ids: 57201775084;57200399832

? Authoraffiliationids: 60025153;60025153

? Corresponding: Palmieri A.

31.

? Title: A power-loss-dependent inductance model for ferrite-core power inductors in switch-mode power supplies

? Venue: IEEE Transactions on Circuits and Systems I Regular Papers

? Year: 2019

? Type: Journal

? Subtype: Article

? Citations: 43

? Doi: 10.1109/Tcsi.2018.2889856

? Scopus ID: 2-s2.0-85064392033

? Issn: 15498328

? eISSN: 15580806

? Volume: 66

? Issue: 6

? Pages: 2394-2402

? Authors: Oliveri Alberto; Di Capua Giulia; Stoyka Kateryna; Lodi Matteo; Storace Marco; Femia Nicola

? Keywords: Behavioral nonlinear model | high power density | magnetic saturation | power loss

? Quartile:

2025:

? Engineering (all) (Q1, rank 28, percentile 92)

2019:

? Subject (Q1, rank 105, percentile 84)

? Source Id: 11000153733

? Author Ids: 57200399832;36559098800;56997468600;57200266678;7004134087;7003881642

? Authoraffiliationids: 60025153;60007061;60007061;60025153;60025153;60007061

? Corresponding: Oliveri A.

32.

? Title: A toolchain for open-loop compensation of hysteresis and creep in atomic force microscopes

? Venue: Proceedings IEEE International Symposium on Circuits and Systems
? Year: 2019
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 0
? Doi: 10.1109/lscas.2019.8702537
? Scopus ID: 2-s2.0-85066800398
? Issn: 02714310
? Volume: 2019-May
? Authors: Oliveri Alberto; Raiteri Roberto; Lodi Matteo; Storace Marco
? Quartile:
2025:
? Electrical and Electronic Engineering (Q3, rank 652, percentile 34)
2019:
? Electrical and Electronic Engineering (Q3, rank 388, percentile 42)
? Source Id: 56190
? Author Ids: 57200399832;7005989160;57200266678;7004134087
? Authoraffiliationids: 60121711;60121711-60021199;60121711;60121711
? Corresponding: Oliveri A.

33.
? Title: A nonlinear inductance model able to reproduce thermal transient in SMPS simulations
? Venue: Proceedings IEEE International Symposium on Circuits and Systems
? Year: 2019
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 19
? Doi: 10.1109/lscas.2019.8702418
? Scopus ID: 2-s2.0-85066794294
? Issn: 02714310
? Volume: 2019-May
? Authors: Bizzarri Federico; Lodi Matteo; Oliveri Alberto; Brambilla Angelo; Storace Marco
? Quartile:
2025:
? Electrical and Electronic Engineering (Q3, rank 652, percentile 34)
2019:
? Electrical and Electronic Engineering (Q3, rank 388, percentile 42)
? Source Id: 56190
? Author Ids: 15734590800;57200266678;57200399832;7103297302;7004134087
? Authoraffiliationids: 60025153;60025153;60025153;60023256;60025153
? Corresponding: Bizzarri F.

34.
? Title: Application of a low-cost piezoelectric displacement estimation technique based on laser interferometry for hysteresis open-loop compensation in an AFM scanner
? Venue: Physica B Condensed Matter
? Year: 2018
? Type: Journal
? Subtype: Article
? Citations: 3
? DOI: 10.1016/j.physb.2017.09.067
? Scopus ID: 2-s2.0-85029740926
? Issn: 09214526
? Volume: 549

? Pages: 43-46

? Authors: Oliveri Alberto; Lodi Matteo; Storace Marco; Raiteri Roberto

? Keywords: AFM | Hysteresis | Interferometry

? Quartile:

2025:

? Electrical and Electronic Engineering (Q2, rank 304, percentile 69)

? Condensed Matter Physics (Q2, rank 152, percentile 66)

? Electronic, Optical and Magnetic Materials (Q2, rank 117, percentile 62)

2018:

? Electrical and Electronic Engineering (Q2, rank 261, percentile 61)

? Condensed Matter Physics (Q2, rank 191, percentile 52)

? Electronic, Optical and Magnetic Materials (Q2, rank 110, percentile 51)

? Source Id: 29118

? Author Ids: 57200399832;57200266678;7004134087;7005989160

? Authoraffiliationids: 60025153;60025153;60025153;60025153-60021199

? Corresponding: Oliveri A.

35.

? Title: Model Reduction for Optimized Online Compensation of Hysteresis and Creep in Piezoelectric Actuators

? Venue: IEEE Transactions on Circuits and Systems II Express Briefs

? Year: 2018

? Type: Journal

? Subtype: Article

? Citations: 13

? Doi: 10.1109/Tcsii.2017.2767287

? Scopus ID: 2-s2.0-85032723969

? Issn: 15497747

? eISSN: 15583791

? Volume: 65

? Issue: 11

? Pages: 1748-1752

? Authors: Oliveri Alberto; Lodi Matteo; Parodi Mauro; Stellino Flavio; Storace Marco

? Keywords: Hysteresis and creep model | open-loop compensation | parameters identification | piezoelectric actuators

? Quartile:

2025:

? Electrical and Electronic Engineering (Q1, rank 97, percentile 90)

2018:

? Electrical and Electronic Engineering (Q1, rank 137, percentile 79)

? Source Id: 9500153930

? Author Ids: 57200399832;57200266678;35508934400;56613350900;7004134087

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

? Corresponding: Oliveri A.

36.

? Title: Accurate Modeling of Inductors Working in Nonlinear Region in Switch-Mode Power Supplies with Different Load Currents

? Venue: Smacd 2018 15th International Conference on Synthesis Modeling Analysis and Simulation Methods and Applications to Circuit Design

? Year: 2018

? Type: Conference Proceeding

? Subtype: Conference Paper

? Citations: 23

? Doi: 10.1109/Smacd.2018.8434871

? Scopus ID: 2-s2.0-85052508662

? Pages: 233-236
? Authors: Oliveri Alberto; Lodi Matteo; Storace Marco
? Source Id: 21100875437
? Author Ids: 57200399832;57200266678;7004134087
? Authoraffiliationids: 60025153;60025153;60025153
? Corresponding: Oliveri A.

37.

? Title: Modeling and compensation of hysteresis and creep: The HysTool toolbox
? Venue: Proceedings IEEE International Symposium on Circuits and Systems
? Year: 2018
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 3
? Doi: 10.1109/Iscas.2018.8351866
? Scopus ID: 2-s2.0-85057107170
? Issn: 02714310
? Volume: 2018-May
? Authors: Oliveri Alberto; Lodi Matteo; Stellino Flavio; Storace Marco
? Quartile:
2025:
? Electrical and Electronic Engineering (Q3, rank 652, percentile 34)
2018:
? Electrical and Electronic Engineering (Q3, rank 382, percentile 42)
? Source Id: 56190
? Author Ids: 57200399832;57200266678;56613350900;7004134087
? Authoraffiliationids: 60025153;60025153;60025153;60025153
? Corresponding: Oliveri A.

38.

? Title: High-speed explicit nonlinear model predictive control
? Venue: 2017 European Conference on Circuit Theory and Design Ecctd 2017
? Year: 2017
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 3
? Doi: 10.1109/Ecctd.2017.8093239
? Scopus ID: 2-s2.0-85039915128
? Authors: Oliveri Alberto; Lodi Matteo; Storace Marco
? Source Id: 21100844807
? Author Ids: 57200399832;57200266678;7004134087
? Authoraffiliationids: 60025153;60025153;60025153
? Corresponding: Oliveri A.

39.

? Title: A low-cost free-space optical communication prototype
? Venue: Proceedings 2017 1st New Generation of CAS Ngcas 2017
? Year: 2017
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 3
? Doi: 10.1109/Ngcas.2017.20
? Scopus ID: 2-s2.0-85034417836
? Pages: 153-156
? Authors: Oliveri Alberto; Lodi Matteo
? Keywords: Microcontroller | Prototype | Underwater optical communication
? Source Id: 21100838549

- ? Author Ids: 57200399832;57200266678
? Authoraffiliationids: 60025153;60025153
? Corresponding: Oliveri A.
40.
? Title: Low-cost acquisition method for on-line inductor characterization in switched power converters
? Venue: Smacd 2017 14th International Conference on Synthesis Modeling Analysis and Simulation Methods and Applications to Circuit Design
? Year: 2017
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 4
? Doi: 10.1109/Smacd.2017.7981617
? Scopus ID: 2-s2.0-85027492656
? Authors: Lodi Matteo; Oliveri Alberto; Storace Marco
? Source Id: 21100827202
? Author Ids: 57200266678;57200399832;7004134087
? Authoraffiliationids: 60025153;60025153;60025153
? Corresponding: Lodi M.
41.
? Title: Ferrite inductor models for switch-mode power supplies analysis and design
? Venue: Smacd 2017 14th International Conference on Synthesis Modeling Analysis and Simulation Methods and Applications to Circuit Design
? Year: 2017
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 27
? Doi: 10.1109/Smacd.2017.7981622
? Scopus ID: 2-s2.0-85027491880
? Authors: Di Capua G.; Femia N.; Stoyka K.; Lodi M.; Oliveri A.; Storace M.
? Keywords: Inductors | Saturation | Switch-Mode Power Supplies
? Source Id: 21100827202
? Author Ids: 36559098800;7003881642;56997468600;57200266678;57200399832;7004134087
? Authoraffiliationids: 60007061;60007061;60007061;60025153;60025153;60025153
? Corresponding: Di Capua G.
42.
? Title: A Switched Predictive Controller for an Electrical Powertrain System with Backlash
? Venue: IEEE Transactions on Power Electronics
? Year: 2017
? Type: Journal
? Subtype: Article
? Citations: 49
? Doi: 10.1109/Tpel.2016.2587756
? Scopus ID: 2-s2.0-85012284294
? Issn: 08858993
? Volume: 32
? Issue: 5
? Pages: 4036-4047
? Authors: Formentini Andrea; Oliveri Alberto; Marchesoni Mario; Storace Marco
? Keywords: Backlash | Model predictive control (MPC) | Permanent magnet synchronous motors (PMSMs)
? Quartile:
2025:

- ? Electrical and Electronic Engineering (Q1, rank 50, percentile 95)
2017:
? Electrical and Electronic Engineering (Q1, rank 9, percentile 98)
? Source Id: 26055
? Author Ids: 55370605300;57200399832;6701827441;7004134087
? Authoraffiliationids: 60025153;60025153;60025153;60025153
? Corresponding: Formentini A.
43.
? Title: Two FPGA-Oriented High-Speed Irradiance Virtual Sensors for Photovoltaic Plants
? Venue: IEEE Transactions on Industrial Informatics
? Year: 2017
? Type: Journal
? Subtype: Article
? Citations: 27
? Doi: 10.1109/Tii.2015.2462293
? Scopus ID: 2-s2.0-85027587683
? Issn: 15513203
? Volume: 13
? Issue: 1
? Pages: 157-165
? Authors: Oliveri Alberto; Cassottana Luca; Laudani Antonino; Riganti Fulginei Francesco; Lozito Gabriele Maria; Salvini Alessandro; Storace Marco
? Keywords: Field programmable gate arrays (FPGAs) | neural networks (NNs) | photovoltaic (PV) power systems | piecewise linear techniques | solar radiation
? Quartile:
2025:
? Information Systems (Q1, rank 9, percentile 98)
? Electrical and Electronic Engineering (Q1, rank 20, percentile 98)
? Computer Science Applications (Q1, rank 22, percentile 97)
? Control and Systems Engineering (Q1, rank 9, percentile 97)
2017:
? Computer Science Applications (Q1, rank 8, percentile 98)
? Information Systems (Q1, rank 6, percentile 97)
? Control and Systems Engineering (Q1, rank 6, percentile 97)
? Electrical and Electronic Engineering (Q1, rank 18, percentile 97)
? Source Id: 144912
? Author Ids:
57200399832;57195377313;35614315000;57226070603;56088424900;7004998609;7004134087
? Authoraffiliationids: 60025153;60025153;60012630;60012630;60012630;60012630;60025153
? Corresponding: Oliveri A.
44.
? Title: A circuit model for open-loop compensation of hysteresis
? Venue: Proceedings IEEE International Symposium on Circuits and Systems
? Year: 2016
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 0
? Doi: 10.1109/Iscas.2016.7538985
? Scopus ID: 2-s2.0-84983412432
? Issn: 02714310
? Volume: 2016-July
? Pages: 2066-2069
? Authors: Oliveri Alberto; Stellino Flavio; Parodi Mauro; Storace Marco

? Quartile:

2025:

? Electrical and Electronic Engineering (Q3, rank 652, percentile 34)

2016:

? Electrical and Electronic Engineering (Q3, rank 345, percentile 47)

? Source Id: 56190

? Author Ids: 57200399832;56613350900;35508934400;7004134087

? Authoraffiliationids: 60025153;60025153;60025153;60025153

? Corresponding: Oliveri A.

45.

? Title: Hysteresis and creep: Comparison between a power-law model and Kuhnen's model

? Venue: Physica B Condensed Matter

? Year: 2016

? Type: Journal

? Subtype: Article

? Citations: 6

? DOI: 10.1016/j.physb.2015.10.039

? Scopus ID: 2-s2.0-84959521068

? Issn: 09214526

? Volume: 486

? Pages: 2-6

? Authors: Oliveri Alberto; Stellino Flavio; Parodi Mauro; Storace Marco

? Keywords: Creep | Modeling | Piezoelectric actuators | Piezoelectric hysteresis

? Quartile:

2025:

? Electrical and Electronic Engineering (Q2, rank 304, percentile 69)

? Condensed Matter Physics (Q2, rank 152, percentile 66)

? Electronic, Optical and Magnetic Materials (Q2, rank 117, percentile 62)

2016:

? Electrical and Electronic Engineering (Q2, rank 204, percentile 68)

? Condensed Matter Physics (Q2, rank 159, percentile 60)

? Electronic, Optical and Magnetic Materials (Q2, rank 89, percentile 59)

? Source Id: 29118

? Author Ids: 57200399832;56613350900;35508934400;7004134087

? Authoraffiliationids: 60025153;60025153;60025153;60025153

? Corresponding: Oliveri A.

46.

? Title: Open-Loop Compensation of Hysteresis and Creep Through a Power-Law Circuit Model

? Venue: IEEE Transactions on Circuits and Systems I Regular Papers

? Year: 2016

? Type: Journal

? Subtype: Article

? Citations: 27

? Doi: 10.1109/TCSI.2016.2515420

? Scopus ID: 2-s2.0-84978001777

? Issn: 15498328

? eISSN: 15580806

? Volume: 63

? Issue: 3

? Pages: 413-422

? Authors: Oliveri Alberto; Stellino Flavio; Caluori Guido; Parodi Mauro; Storace Marco

? Keywords: Compensator | creep | hysteresis | modeling | multi-scale dynamics | nonlinear circuits

? Quartile:
2025:
? Engineering (all) (Q1, rank 28, percentile 92)
2016:
? Subject (Q1, rank 50, percentile 92)
? Source Id: 11000153733
? Author Ids: 57200399832;56613350900;57188590173;35508934400;7004134087
? Authoraffiliationids: 60025153;60025153;60121711;60025153;60025153
? Corresponding: Oliveri A.

47.

? Title: Estimation of stepping motor current from long distances through cable-length-adaptive piecewise affine virtual sensor
? Venue: Acta Imeko
? Year: 2015
? Type: Journal
? Subtype: Article
? Citations: 0
? DOI: 10.21014/acta_imeko.v4i3.249
? Scopus ID: 2-s2.0-84944456785
? Issn: 0237028x
? eISSN: 2221870X
? Volume: 4
? Issue: 3
? Pages: 53-58
? Authors: Oliveri Alberto; Butcher Mark; Masi Alessandro; Storace Marco
? Keywords: Estimation | FPGA | Piecewise-affine functions | Virtual sensor
? Quartile:

2025:

? Instrumentation (Q2, rank 88, percentile 53)
? Electrical and Electronic Engineering (Q2, rank 482, percentile 51)
? Mechanical Engineering (Q3, rank 373, percentile 49)

2015:

? Mechanical Engineering (Q4, rank 454, percentile 14)
? Electrical and Electronic Engineering (Q4, rank 592, percentile 10)
? Instrumentation (Q4, rank 94, percentile 10)

? Source Id: 21100407601

? Author Ids: 57200399832;22957121400;22980071200;7004134087

? Authoraffiliationids: 60025153;60019778;60019778;60025153

? Corresponding: Oliveri A.

48.

? Title: Automatic Domain Partitioning of Piecewise-Affine Simplicial Functions Implementing Model Predictive Controllers
? Venue: IEEE Transactions on Circuits and Systems II Express Briefs
? Year: 2015
? Type: Journal
? Subtype: Article
? Citations: 10
? Doi: 10.1109/Tcsii.2015.2435971
? Scopus ID: 2-s2.0-84941028313
? Issn: 15497747
? eISSN: 15583791
? Volume: 62
? Issue: 9
? Pages: 886-890

? Authors: Oliveri Alberto; Reimers Martin; Storace Marco
? Keywords: multidimensional systems | nonlinear systems | Piecewise linear approximation
? Quartile:
2025:
? Electrical and Electronic Engineering (Q1, rank 97, percentile 90)
? Source Id: 9500153930
? Author Ids: 57200399832;6603794783;7004134087
? Authoraffiliationids: 60025153;60010348;60025153
? Corresponding: Oliveri A.

49.
? Title: Low-complexity digital architecture for solving the point location problem in explicit Model Predictive Control
? Venue: Journal of the Franklin Institute
? Year: 2015
? Type: Journal
? Subtype: Article
? Citations: 7
? DOI: 10.1016/j.jfranklin.2015.03.018
? Scopus ID: 2-s2.0-84929294126
? Issn: 00160032
? Volume: 352
? Issue: 6
? Pages: 2249-2258
? Authors: Oliveri Alberto; Gianoglio Christian; Ragusa Edoardo; Storace Marco
? Quartile:

2025:
? Applied Mathematics (Q1, rank 59, percentile 91)
? Signal Processing (Q1, rank 39, percentile 80)
? Computer Networks and Communications (Q1, rank 134, percentile 75)
? Control and Systems Engineering (Q1, rank 94, percentile 75)

2015:
? Applied Mathematics (Q1, rank 36, percentile 91)
? Control and Systems Engineering (Q1, rank 33, percentile 84)
? Computer Networks and Communications (Q1, rank 43, percentile 81)
? Signal Processing (Q1, rank 17, percentile 81)

? Source Id: 27959
? Author Ids: 57200399832;56580140000;56580248800;7004134087
? Authoraffiliationids: 60025153;60025153;60025153;60025153
? Corresponding: Oliveri A.

50.
? Title: A circuit model of hysteresis and creep
? Venue: IEEE Transactions on Circuits and Systems II Express Briefs
? Year: 2015
? Type: Journal
? Subtype: Article
? Citations: 17
? Doi: 10.1109/Tcsii.2014.2385412
? Scopus ID: 2-s2.0-84928785563
? Issn: 15497747
? eISSN: 15583791
? Volume: 62
? Issue: 5
? Pages: 501-505

? Authors: Biggio Matteo; Oliveri Alberto; Stellino Flavio; Parodi Mauro; Storace Marco

? Keywords: creep | Hysteresis | identification | modeling | nonlinear circuits

? Quartile:

2025:

? Electrical and Electronic Engineering (Q1, rank 97, percentile 90)

? Source Id: 9500153930

? Author Ids: 55781513000;57200399832;56613350900;35508934400;7004134087

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

? Corresponding: Biggio M.

51.

? Title: Low-complexity piecewise-affine virtual sensors: Theory and design

? Venue: International Journal of Control

? Year: 2014

? Type: Journal

? Subtype: Article

? Citations: 5

? Doi: 10.1080/00207179.2013.852250

? Scopus ID: 2-s2.0-84893944904

? Issn: 00207179

? eISSN: 13665820

? Volume: 87

? Issue: 3

? Pages: 622-632

? Authors: Rubagotti Matteo; Poggi Tomaso; Oliveri Alberto; Pascucci Carlo Alberto; Bemporad Alberto; Storace Marco

? Keywords: digital circuits | nonlinear observers | piecewise-affine functions

? Quartile:

2025:

? Control and Systems Engineering (Q2, rank 134, percentile 64)

? Computer Science Applications (Q2, rank 404, percentile 58)

2014:

? Control and Systems Engineering (Q1, rank 51, percentile 75)

? Computer Science Applications (Q2, rank 127, percentile 74)

? Source Id: 12342

? Author Ids: 24725558700;24588146700;57200399832;44961452400;7005030586;7004134087

? Authoraffiliationids: 60104301;113114649;60025153;60102060;60102060;60025153

? Corresponding: Rubagotti M.

52.

? Title: Improving power grids transient stability via Model Predictive Control

? Venue: Proceedings 2014 Power Systems Computation Conference Pscc 2014

? Year: 2014

? Type: Conference Proceeding

? Subtype: Conference Paper

? Citations: 27

? Doi: 10.1109/Pscc.2014.7038364

? Scopus ID: 2-s2.0-84946687291

? Authors: Bonfiglio A.; Oliveri A.; Procopio R.; Delfino F.; Denegri G. B.; Invernizzi M.; Storace M.

? Keywords: emergency control | load shedding | MPC | stability

? Source Id: 21100377750

? Author Ids:

36607521000;57200399832;7801615894;6603766602;7004649825;6701527755;7004134087

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

? Corresponding: Bonfiglio A.

53.

? Title: Piecewise affine virtual sensor: A case study - Estimation of stepping motor current from long distances
? Venue: 20th Imeko Tc4 Symposium on Measurements of Electrical Quantities Research on Electrical and Electronic Measurement for the Economic Upturn Together with 18th Tc4 International Workshop on ADC and Dca Modeling and Testing Iwadc 2014
? Year: 2014
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 1
? Scopus ID: 2-s2.0-84918832128
? Pages: 445-449
? Authors: Oliveri A.; Butcher M.; Masi A.; Storace M.
? Source Id: 21100356014
? Author Ids: 57200399832;22957121400;22980071200;7004134087
? Authoraffiliationids: 60025153;60019778;60019778;60025153
? Corresponding: Oliveri A.

54.

? Title: An algorithm for automatic domain partitioning of piecewise-affine model predictive control laws
? Venue: Proceedings of the IEEE International Conference on Electronics Circuits and Systems
? Year: 2013
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 1
? Doi: 10.1109/Icecs.2013.6815393
? Scopus ID: 2-s2.0-84901412378
? Pages: 217-220
? Authors: Oliveri Alberto; Canepa Alessio; Queirolo Leonardo; Storace Marco
? Source Id: 91096
? Author Ids: 57200399832;7004014399;56179753300;7004134087
? Authoraffiliationids: 60025153;60025153;60025153;60025153
? Corresponding: Oliveri A.

55.

? Title: Design and circuit implementation of approximate switched MPC
? Venue: 2013 European Conference on Circuit Theory and Design Ecctd 2013 Proceedings
? Year: 2013
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 2
? DOI: 10.1109/ecctd.2013.6662329
? Scopus ID: 2-s2.0-84892652601
? Authors: Oliveri A.; Lodi M.; Storace M.
? Source Id: 21100997143
? Author Ids: 57200399832;57200266678;7004134087
? Authoraffiliationids: 60025153;60025153;60025153
? Corresponding: Oliveri A.

56.

? Title: Hardware-in-the-loop simulations of circuit architectures for the computation of exact and approximate explicit MPC control functions
? Venue: 2012 19th IEEE International Conference on Electronics Circuits and Systems Iicecs 2012
? Year: 2012

? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 13
? Doi: 10.1109/Icecs.2012.6463722
? Scopus ID: 2-s2.0-84874624674
? Pages: 380-383
? Authors: Oliveri Alberto; Storace Marco
? Source Id: 21100230013
? Author Ids: 57200399832;7004134087
? Authoraffiliationids: 60025153;60025153
? Corresponding: Oliveri A.

57.

? Title: FPGA implementation of optimal and approximate model predictive control for a buck-boost DC-DC converter
? Venue: Proceedings of the IEEE International Conference on Control Applications
? Year: 2012
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 21
? Doi: 10.1109/Cca.2012.6402444
? Scopus ID: 2-s2.0-84873143733
? Pages: 1417-1423
? Authors: Spinu Veaceslav; Oliveri Alberto; Lazar Mircea; Storace Marco
? Source Id: 145225
? Author Ids: 51462074600;57200399832;15077814300;7004134087
? Authoraffiliationids: 60032882;60025153;60032882;60025153
? Corresponding: Spinu V.

58.

? Title: FPGA implementations of piecewise affine functions based on multi-resolution hyperrectangular partitions
? Venue: IEEE Transactions on Circuits and Systems I Regular Papers
? Year: 2012
? Type: Journal
? Subtype: Article
? Citations: 23
? Doi: 10.1109/Tcsi.2012.2206490
? Scopus ID: 2-s2.0-84870507779
? Issn: 15498328
? Volume: 59
? Issue: 12
? Pages: 2920-2933
? Authors: Comaschi Francesco; Genuit Bart A.G.; Oliveri Alberto; Heemels W. P.Maurice H.; Storace Marco
? Keywords: Digital circuits | digital control | field programmable gate arrays | piecewise linear techniques | predictive control
? Quartile:
2025:
? Engineering (all) (Q1, rank 28, percentile 92)
2012:
? Subject (Q1, rank 59, percentile 90)
? Source Id: 11000153733
? Author Ids: 35486967200;55331677400;57200399832;7004095044;7004134087
? Authoraffiliationids: 60032882-60025153;60032882;60032882;60032882;60032882
? Corresponding: Comaschi F.

59.

- ? Title: Moby-dic: A MATLAB Toolbox for circuit-oriented design of explicit MPC
- ? Venue: IFAC Proceedings Volumes IFAC Papersonline
- ? Year: 2012
- ? Type: Conference Proceeding
- ? Subtype: Conference Paper
- ? Citations: 16
- ? Doi: 10.3182/20120823-5-NI-3013.00034
- ? Scopus ID: 2-s2.0-84867088749
- ? Issn: 14746670
- ? Volume: 4
- ? Issue: Part 1
- ? Pages: 218-225
- ? Authors: Oliveri Alberto; Barcelli Davide; Bemporad Alberto; Genuit Bart; Heemels Maurice; Poggi Tomaso; Rubagotti Matteo; Storace Marco
- ? Quartile:
 - 2025:
 - ? Control and Systems Engineering (Q3, rank 218, percentile 42)
 - ? Source Id: 21100456158
 - ? Author Ids: 57200399832;36547432800;7005030586;55331677400;7004095044;24588146700;24725558700;7004134087
 - ? Authoraffiliationids: 60025153;60102060;60102060;60032882;60032882;113114649;60104301;60025153
 - ? Corresponding: Oliveri A.

60.

- ? Title: Ultra-fast stabilizing model predictive control via canonical piecewise affine approximations
- ? Venue: IEEE Transactions on Automatic Control
- ? Year: 2011
- ? Type: Journal
- ? Subtype: Article
- ? Citations: 109
- ? Doi: 10.1109/Tac.2011.2141410
- ? Scopus ID: 2-s2.0-83255166721
- ? Issn: 00189286
- ? Volume: 56
- ? Issue: 12
- ? Pages: 2883-2897
- ? Authors: Bemporad Alberto; Oliveri Alberto; Poggi Tomaso; Storace Marco
- ? Keywords: Hardware synthesis | Model predictive control (MPC) | Piecewise affine (PWA) approximations
- ? Quartile:
 - 2025:
 - ? Electrical and Electronic Engineering (Q1, rank 52, percentile 94)
 - ? Control and Systems Engineering (Q1, rank 28, percentile 92)
 - ? Computer Science Applications (Q1, rank 73, percentile 92)
 - 2011:
 - ? Computer Science Applications (Q1, rank 23, percentile 95)
 - ? Electrical and Electronic Engineering (Q1, rank 32, percentile 94)
 - ? Control and Systems Engineering (Q1, rank 11, percentile 94)
- ? Source Id: 17339
- ? Author Ids: 7005030586;57200399832;24588146700;7004134087
- ? Authoraffiliationids: 60015986;60025153;60025153;60025153
- ? Corresponding: Bemporad A.

61.

? Title: Low-complexity approximations of PWA functions: A case study on adaptive cruise control
? Venue: 2011 20th European Conference on Circuit Theory and Design Ecctd 2011
? Year: 2011
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 10
? Doi: 10.1109/Ecctd.2011.6043632
? Scopus ID: 2-s2.0-80155137644
? Pages: 669-672
? Authors: Oliveri A.; Naus G. J.L.; Storace M.; Heemels W. P.M.H.
? Source Id: 20300195053
? Author Ids: 57200399832;24172810600;7004134087;7004095044
? Authoraffiliationids: 60025153;60032882;60025153;60032882
? Corresponding: Oliveri A.

62.

? Title: Barriers to transport induced by periodic oscillations in a physical model of the human vitreous chamber
? Venue: Physical Review E Statistical Nonlinear and Soft Matter Physics
? Year: 2011
? Type: Journal
? Subtype: Article
? Citations: 4
? DOI: 10.1103/PhysRevE.83.036311
? Scopus ID: 2-s2.0-79953130209
? Issn: 15393755
? eISSN: 15502376
? Volume: 83
? Issue: 3
? Authors: Oliveri Alberto; Stocchino Alessandro; Storace Marco
? Source Id: 21101276710
? Author Ids: 57200399832;8895072100;7004134087
? Authoraffiliationids: 60025153;60025153;60025153
? Corresponding: Oliveri A.

63.

? Title: Synthesis of stabilizing model predictive controllers via canonical piecewise affine approximations
? Venue: Proceedings of the IEEE Conference on Decision and Control
? Year: 2010
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 9
? Doi: 10.1109/Cdc.2010.5717868
? Scopus ID: 2-s2.0-79953135833
? Issn: 07431546
? eISSN: 25762370
? Pages: 5296-5301
? Authors: Bemporad Alberto; Oliveri Alberto; Poggi Tomaso; Storace Marco
? Quartile:
2025:
? Control and Optimization (Q3, rank 90, percentile 49)
? Modeling and Simulation (Q3, rank 233, percentile 38)
? Control and Systems Engineering (Q3, rank 236, percentile 38)

? Source Id: 87424
? Author Ids: 7005030586;57200399832;24588146700;7004134087
? Authoraffiliationids: 60015986;60025153;60025153;60025153
? Corresponding: Bemporad A.

64.

? Title: Circuit implementation of piecewise-affine functions based on a binary search tree
? Venue: Ecctd 2009 European Conference on Circuit Theory and Design Conference Program
? Year: 2009
? Type: Conference Proceeding
? Subtype: Conference Paper
? Citations: 30
? Doi: 10.1109/Ecctd.2009.5274957
? Scopus ID: 2-s2.0-71249087226
? Pages: 145-148
? Authors: Oliveri Alberto; Oliveri Andrea; Poggi Tomaso; Storace Marco
? Source Id: 19400158908
? Author Ids: 57200399832;57235314800;24588146700;7004134087
? Authoraffiliationids: 60025153;60025153;60025153;60025153
? Corresponding: Oliveri A.