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Decreto Rettore Università di Roma “La Sapienza” n 3227/2021 del 02/12/2021

**GIUSEPPE VISCONTI**  
**Curriculum Vitae ai fini della pubblicazione**

Date 22/01/2022

**Part II – Education**

Type	Year	Institution	Notes (Degree, Experience,...)
PhD	2016	University of Insubria (Italy)	PhD Course in Computer Science and Computational Mathematics.  Research topics: (a) mathematical models for traffic flow; (b) high-order finite volume schemes for hyperbolic PDEs.  Thesis on single and multi population kinetic models for traffic flow.  Supervisors: Prof. G. Puppo, Prof. M. Semplice, Prof. A. Tosin.
University graduation	2013	University of Turin (Italy)	Thesis on multirate Runge-Kutta methods for separably stiff problems.  Grade: 110/110 cum laude.  Supervisor: Prof. M. Semplice.

**Part III – Appointments**

IIIA – Academic Appointments

Start	End	Institution	Position
12.20	11.23	Sapienza University of Rome (Italy)	Non-tenured Assistant Professor (RTDa S.C. 01/A5 - S.S.D. MAT/08, Numerical Analysis).
01.17	11.20	RWTH Aachen University (Germany)	Post-Doc Researcher in the Prof. Herty's Group on Continuous Optimization.

### IIIB – Other Appointments

Start	End	Institution	Position
07.20		Friedrich-Alexander-Universität (Germany)	Appointed as Junior Professor (W1) - Chair in Applied Analysis (Alexander von Humboldt-Professorship).  Offer rejected.

### Part IV – Teaching experience

Year	Institution	Lecture/Course
21/22	Sapienza University of Rome (Italy)	Computational Mathematics (Matematica Computazionale) (M.Sc. in Applied Mathematics)
21/22	Sapienza University of Rome (Italy)	Numerical Methods for ODEs (Metodi Numerici di Approssimazione) (B.Sc. in Mathematics) with Prof. M. Falcone
21/22	Sapienza University of Rome (Italy)	MATLAB (B.Sc. in Mathematics) with Prof. B.M. Dellavecchia
20/21	Sapienza University of Rome (Italy)	Introduction to Game Theory (Course for the Excellence Programme)
20/21	Sapienza University of Rome (Italy)	Computational Mathematics (Matematica Computazionale) (M.Sc. in Applied Mathematics) with Prof. G. Puppo
20/21	Sapienza University of Rome (Italy)	Numerical Methods for ODEs (Metodi Numerici di Approssimazione) (B.Sc. in Mathematics)
19/20	RWTH Aachen University (Germany)	Functional Analysis (M.Sc. in Mathematics) with Prof. M. Herty and Dr. T. Tschempel
18/19	RWTH Aachen University (Germany)	Continuous Optimization (M.Sc. in Mathematics)
17/18	RWTH Aachen University (Germany)	Continuous Optimization (M.Sc. in Mathematics)
17/18	RWTH Aachen University (Germany)	Time-Integration Numerical Methods for Partial Differential Equations (M.Sc. in Mathematics)
15/16	University of Insubria (Italy)	Exercise Sessions of Calculus II (B.Sc. in Mathematics)

### IVA – Thesis Supervision

Year	Institution	Description
03.22	Sapienza University of Rome (Italy)	Advisor of the Bachelor's Thesis "Artificial neural networks: Description and

		Optimization”. Student: Sara Pazzaglia.
12.21	Sapienza University of Rome (Italy)	Advisor of the Bachelor’s Thesis “Error analysis of the finite difference method for BVP”. Student: Aurora Bassani.
12.21	Sapienza University of Rome (Italy)	Advisor of the Bachelor’s Thesis “A mathematical model for the interaction between tumor and immune system”. Student: Benedetta Dionisi Ferrera.
12.21	Sapienza University of Rome (Italy)	Advisor of the Bachelor’s Thesis “Population models with group behavior and diffusion”. Student: Alex Kwomsie Dassas.
12.21	Sapienza University of Rome (Italy)	Advisor of the Bachelor’s Thesis “Adaptive time-step methods for one- and multi-step schemes”. Student: Andrea Mastrodonato.
10.21	Sapienza University of Rome (Italy)	Advisor of the Bachelor’s Thesis “Investment strategies for stock markets: the Levy-Levy-Solomon model”. Student: Daniele Fontana.
10.21	Sapienza University of Rome (Italy)	Advisor of the Bachelor’s Thesis “Stability properties of implicit methods for stiff problems”. Student: Lorenzo Biagi.
09.21	Sapienza University of Rome (Italy)	Advisor of the Bachelor’s Thesis “The phenomenon of flocking in multi-agent systems”. Student: Giulio D’Erasmus.
19/20	RWTH Aachen University (Germany)	Co-advisor of the Bachelor’s Thesis “The Hille-Yosida Theorem and Applications to PDEs”. Student: Sebastian Giese.
18/19	RWTH Aachen University (Germany)	Supervisor of the seminar for the Simulation Sciences School. Student: Ziyang Wang
18/20	RWTH Aachen University (Germany)	Co-supervisor of the PhD Student A. Yegenoglu within the Learning-to-learn joint project with FZ Jülich
17/18	RWTH Aachen University (Germany)	Co-advisor of the Master’s Thesis “Data-driven traffic road models based on Aw-Rascle differential equations”. Candidate: Amira El Amouri.

## Part V - Society memberships, Awards and Honors

Year	Title
2019	Honored with Mathematics/Physics/Computer Science Representative Council’s Teaching Award at the RWTH Aachen University ( <a href="https://www.mathematik.rwth-aachen.de/cms/mathematik/Forschung/Auszeichnungen/~gslc/AbsolventenTag-Mathematik-Lehrpreise/">https://www.mathematik.rwth-aachen.de/cms/mathematik/Forschung/Auszeichnungen/~gslc/AbsolventenTag-Mathematik-Lehrpreise/</a> )
17-21	I served as referee for “Journal of Computational Physics”, “SIAM Journal on Scientific Computing”, “SIAM Journal on Applied Dynamical Systems”, “SIAM Journal on Applied Mathematics”, “SIAM Multiscale Modeling and Simulation”,

	“Kinetic and Related Models”, “Physica-A”, “Journal of Computational and Applied Mathematics”, “Computers and Mathematics with Applications” and “Mathematics and Computers in Simulations”
2019	Financial support - ICIAM 2019
2019	Financial support - Crowds: Models and Control Conference
2016	Financial support - HYP2016 Conference
2015	Financial support - NumHyp2015 INdAM-GNCS Conference
14-22	Member of INdAM-GNCS Group “National Group of Scientific Computing”
14-17	Member of the SIMAI Activity Group on Complex Systems
2013	PhD Fellowship (University of Insubria)
2012	Scholarship Art.13 (University of Turin)
2009	Scholarship Art.13 (University of Turin)

### Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program	Grant value
21-24	Assessment of Deep Learning through Mean-field Theory – PI with Prof. Michael Herty	DFG Project (SPP 2298 “Theoretical Foundations of Deep Learning”)	€ 260k
22-23	Evolutionary problems: analysis techniques and construction of numerical solutions - PI: Prof. Gabriella Puppo	Sapienza University Projects (Bandi di Ateneo per la Ricerca)	€ 75k

### VIA – Participation to projects

Year	Title	Program
2021	Innovative Numerical Methods for Evolutionary Partial Differential Equations and Applications	PRIN 2017
19-20	Internet of Production	DFG Cluster of Excellence at the RWTH Aachen University
18-20	Learning-to-learn: Hyperparameter optimization of spiking neuronal networks using HPC resources	RWTH Aachen University and FZ Jülich Joint Project
17-19	Multiscale modeling for simulation-based accident risk assessments	DFG Project
2018	Metodi numerici per problemi di controllo multiscala e applicazioni	INdAM-GNCS
2016	Metodi numerici per la quantificazione dell’incertezza	INdAM-GNCS
2015	Semi-implicit and semi-Lagrangian numerical methods for hyperbolic systems of balance laws	INdAM-GNCS
2014	High resolution methods for strongly non linear evolutive problems	INdAM-GNCS

## Part VII – Seminars as Invited Speaker

Year	Title	Meeting	Information
12.21	Quinpi: integrating conservation laws with CWENO implicit methods	Young Researcher Meeting of the conference “Numerical Aspects of Hyperbolic Balance Laws and Related Problems”	Verona (Italy)
11.21	Quinpi: integrating conservation laws with CWENO implicit methods	Seminar at RWTH Aachen University	Aachen (Germany)
11.21	Mean-field and kinetic descriptions of residual neural networks with infinite layers	AI Research Seminar at the Excellence Cluster of the RWTH Aachen University	Aachen (Germany)
09.21	On Continuum Limits of the Ensemble Kalman Inversion	INdAM Workshop “Present Research Trends in Conservation Laws”	Rome (Italy)
09.21	Stabilization of continuous limits of the ensemble Kalman inversion	IFIP TC7 Conference on System Modelling and Optimization	Mini-Symposium “Inverse problems and optimal control for mean-field models in socio-economics” organized by Prof. Wolfram and Prof. Düring Quito (Ecuador)
04.21	On continuum limits of the ensemble Kalman filter	21st ECMI Conference	Mini-Symposium “Data-driven Optimization” organized by Prof. Göttlich and Dr. Totzeck Wuppertal (Germany)
03.20	Kinetic Methods for Inverse Problems	SIAMUQ 2020 (Canceled)	Mini-Symposium “Particle methods for inverse problems” organized by Dr. Chada, Dr. Pathiraja and Dr. Weissmann Munich (Germany)
02.20	Unstable waves in kinetic traffic models	Workshop on Kinetic Traffic Models and Numerical Methods	Rome (Italy)

09.19	Two-dimensional microscopic-macroscopic models for traffic flow on highways	Seminar at Temple University	Philadelphia (US)
07.19	Two-dimensional approaches for the mathematical modeling of traffic flow	ICIAM 2019	Mini-Symposium "Mathematical descriptions of traffic flow: micro, macro and kinetic models" organized by Prof. Puppo and Prof. Tosin Valencia (Spain)
02.19	Kinetic Methods for Inverse Problems	Applied PDEs Seminar at Imperial College London	London (UK)
11.18	Unstable waves in kinetic traffic models	Rencontres Normandes sur les aspects théoriques et numériques des EDP	Rouen (France)
10.18	Two-dimensional macroscopic models for traffic flow on highways	Problems in discrete dynamics: from biochemical systems to rare events, networks, clustering and related topics - IV Edition	Arcidosso (Italy)
09.18	Kinetic formulation of the Ensemble Kalman Filter for parameter estimation problems	Joint meeting of UMI, SIMAI and PTM	Session "Advances in kinetic theory" organized by Prof. Tosin and Prof. Zatorska Wroclaw (Poland)
09.18	Qualitative Properties of a Continuous Model for Data Flow in Large Computer Systems	Interactive workshop on hyperbolic equations	Ferrara (Italy)
06.18	Analysis of risk levels for traffic on a multi-lane highway	15th IFAC Symposium on Control in Transportation Systems (CTS 2018)	Session "Road Traffic Modelling" organized by Prof. Goatin Savona (Italy)
05.18	Kinetic models for data clustering problems	Kinetic Theory for Control, Games and Uncertainty	Aachen (Germany)
03.18	The CWENO reconstruction procedure and applications	CAM Seminar at the Oak Ridge National Laboratory	Oak Ridge (US)
07.17	Traffic flow models based on the kinetic theory	Seminar at Politecnico of Turin	Turin (Italy)
10.15	Kinetic models for traffic flow resulting in a reduced space of microscopic velocities	Seminar at RWTH Aachen University	Aachen (Germany)

07.14	A 2-population kinetic model for vehicular traffic	SIMAI 2014 Congress	Mini-Symposium “Complex Systems (vehicular traffic, crowd dynamics, biological systems, social systems)” organized by Prof. Tosin Taormina (Italy)
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VIIA – Other Communications

Year	Title	Meeting	Information
02.20	Modeling traffic dynamics using kinetic theory	Workshop on Topics on pedestrian dynamics 2020	Cologne (Germany)
07.19	Qualitative Properties of a Continuous Model for Data Flow in Large Computer Systems	ICIAM 2019	Mini-Symposium “Novel Concepts in Model-driven Optimization and Control of Agent-based Systems” Valencia (Spain)
06.19	Optimal definition of the nonlinear weights in multidimensional Central WENOZ reconstructions	NumHyp2019	Malaga (Spain)
06.19	The BGK approximation of kinetic models for traffic	Crowds: Models and Control	Marseille (France)
05.18	Traffic flow models derived from a kinetic approach	7th Workshop on Theory and Numerics for Kinetic Equations	Saarbruecken (Germany)
09.17	Two-dimensional macroscopic models for traffic flow on highways	XVII Italian Meeting on Hyperbolic Equations	Pavia (Italy)
03.17	Traffic flow models derived from a kinetic approach	VIII Workshop on the Mathematical Foundations of Traffic - INdAM Workshop: Transport Modeling and Management. Vehicles and Crowds	Rome (Italy)
08.16	Traffic flow models derived from a kinetic approach	HYP2016 Conference	Aachen (Germany)
05.16	Runge-Kutta Multirate Schemes for ODEs and Conservation Laws	SHARK-FV Conference	Sao Felix (Portugal)
03.16	Kinetic models for traffic flow with multivalued diagrams	INdAM-GNCS Workshop “Semi-implicit and semi-Lagrangian methods for hyperbolic problems”	Milan (Italy)
10.15	Kinetic models for traffic flow	Workshop “Mathematical	Turin (Italy)

	resulting in a reduced space of microscopic velocities	Models in Social Dynamics”	
06.15	An heterogeneous discrete-velocity kinetic model for traffic flow	NumHyp2015	Cortona (Italy)
01.15	An heterogeneous discrete-velocity kinetic model for traffic flow	INdAM-GNCS Workshop “Numerics for Nonlinear PDEs”	Rome (Italy)
09.13	Runge-Kutta multirate schemes for ODE and conservation laws	INdAM-GNCS Workshop “Numerical Aspects of Hyperbolic Balance Laws and Related Problems”	Milan (Italy)

#### VIIB – Other Activities

Year	Title	Meeting	Information
07.19	Novel Concepts in Model-driven Optimization and Control of Agent-based Systems	ICIAM 2019	Co-organizer of a mini-symposium Valencia (Spain)

#### VIIC – Visiting Periods

Year	Location	Information
11.21	RWTH Aachen University – Prof. M. Herty	1 week - Aachen (Germany)
09.19	Rutgers University – Prof. B. Piccoli	1 week – Camden (US)
02.19	Imperial College London – Prof. J.A. Carrillo and Prof. G. Pavliotis	1 week – London (UK)
03.18	Oak Ridge National Laboratory – Prof. C.D. Hauck	1 week - Oak Ridge (US)
07-09.17	Politecnico of Turin – Prof. A. Tosin	2 weeks – Turin (Italy)
01.16	Politecnico of Turin – Prof. A. Tosin	2 weeks – Turin (Italy)
10-12.15	RWTH Aachen University – Prof. M. Herty	2 months - Aachen (Germany)

#### Part VIII – Research Activities

Keywords	Brief Description
Finite volume schemes	Numerical analysis – For a detailed description, I refer to the research statement attached to this application.
Systems of hyperbolic PDEs	
Stiff systems	
Numerical schemes for ODEs	

High-order methods	Applied mathematics – For a detailed description, I refer to the research statement attached to this application.
Filtering methods	
Inverse problems	
Multiscale modeling	
Traffic flow	
Multi-agent systems	
Data flow and clustering	
Machine learning	

### Part IX – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	18	Scopus	2016	2021
Papers [international]	19	WOS	2016	2021
Books [scientific]	3	Scopus	2012	2021
Proceedings	3	Scopus	2018	2021
Proceedings	3	WOS	2018	2021

Total Impact factor	<p>Computed as sum of the IF of the journals of all papers related to the year of publication until 2020. The Journal IF related to papers published in 2021 are not available and therefore not considered = <b>26.118</b></p> <p>Computed as average number of citations given by papers published in year Y to papers published by the author in a period of K years before year Y. (Scopus data)  - Y=2021, K=2 =&gt; 19/7=<b>2.71</b>  - Y=2021, K=5 =&gt; 69/17=<b>4.06</b></p>
Total Citations	<b>198</b> (Scopus) – <b>183</b> (WOS)
Average Citations per Product	<b>8.25</b> (Scopus) – <b>8.32</b> (WOS)
Hirsch (H) index	<b>8</b> (Scopus) – <b>8</b> (WOS)
Normalized H index*	<p>H-Index (8) / Academic Seniority (5 years since awarded PhD) = <b>1.6</b></p> <p>H-Index (8) / Academic Seniority (8 years since starting the PhD) = <b>1</b></p>

\*H index divided by the academic seniority.

## Part X– Selected Publications

List of the publications selected for the evaluation. For each publication report title, authors, reference data, journal IF (if applicable), citations, press/media release (if any).

**For all, I specify, respectively, the number of citations Cit on Scopus and on WOS, the impact factor IF and the average 5yrs IF over 5 years, relevant to the year of publication, the corresponding quartile Q and percentile p of the Journal. Journal metrics are from Journal Citation Reports.**

1. M. Herty, G. Visconti.  
Continuous Limits for Constrained Ensemble Kalman Filter.  
*Inverse Probl.*, 36(7):0750062020, 2020.  
doi.org/10.1088/1361-6420/ab8bc5  
**0 Cit on Scopus, 2 Cit on WOS, IF 2.407, 5yrs IF 2.618, Q1, p 81.70**
  
2. M. Semplice, G. Visconti.  
Efficient implementation of adaptive order reconstructions.  
*J. Sci. Comput.*, 83(1):6, 2020.  
doi.org/10.1007/s10915-020-01156-6  
**5 Cit on Scopus, 6 Cit on WOS, IF 2.592, 5yrs IF 2.744, Q1, p 85.85**
  
3. M. Herty, G. Puppo, S. Roncoroni, G. Visconti.  
The BGK approximation of kinetic models for traffic.  
*Kinet. Relat. Models*, 13(2):279-307, 2020.  
10.3934/krm.2020010  
**8 Cit on Scopus, 5 Cit on WOS, IF 1.432, 5yrs IF 1.641, Q1-Q2, p 75.30-55.28**
  
4. M. Herty, G. Visconti.  
Kinetic Methods for Inverse Problems.  
*Kinet. Relat. Models*, 12(5):1109-1130, 2019.  
10.3934/krm.2019042  
**6 Cit on Scopus, 7 Cit on WOS, IF 1.311, 5yrs IF 1.184, Q1-Q2, p 79.23-59.20**
  
5. I. Cravero, M. Semplice, G. Visconti.  
Optimal definition of the nonlinear weights in multidimensional Central WENOZ reconstructions.  
*SIAM J. Numer. Anal.*, 57(5):2328-2358, 2019.  
doi.org/10.1137/18M1228232  
**8 Cit on Scopus, 10 Cit on WOS, IF 2.712, 5yrs IF 2.872, Q1, p 91.75**

6. I. Cravero, G. Puppo, M. Semplice, G. Visconti.  
Cool WENO Schemes.  
*Comput. Fluids*, 169:71-86, 2018.  
[doi.org/10.1016/j.compfluid.2017.07.022](https://doi.org/10.1016/j.compfluid.2017.07.022)  
**19 Cit on Scopus, 20 Cit on WOS, IF 2.223, 5yrs IF 2.587, Q2, p 50.47**
  
7. M. Herty, S. Moutari, G. Visconti.  
Macroscopic modeling of multi-lane motorways using a two-dimensional second-order model of traffic flow.  
*SIAM J. Appl. Math.*, 78(4):2252-2278, 2018.  
[doi.org/10.1137/17M1151821](https://doi.org/10.1137/17M1151821)  
**7 Cit on Scopus, 6 Cit on WOS, IF 1.449, 5yrs IF 1.870, Q2, p 67.13**
  
8. I. Cravero, G. Puppo, M. Semplice, G. Visconti.  
CWENO: uniformly accurate reconstructions for balance laws.  
*Math. Comp.*, 87(312):1689-1719, 2018.  
[doi.org/10.1090/mcom/3273](https://doi.org/10.1090/mcom/3273)  
**43 Cit on Scopus, 44 Cit on WOS, IF 2.087, 5yrs IF 2.022, Q1, p 86.42**
  
9. G. Visconti, M. Herty, G. Puppo, A. Tosin.  
Multivalued fundamental diagrams of traffic flow in the kinetic Fokker-Planck limit.  
*Multiscale Model. Simul.*, 15:1267-1293, 2017.  
[doi.org/10.1137/16M1087035](https://doi.org/10.1137/16M1087035)  
**16 Cit on Scopus, 13 Cit on WOS, IF 2.277, 5yrs IF 2.288, Q1, p 84.55-76.21**
  
10. G. Puppo, M. Semplice, A. Tosin, G. Visconti.  
Kinetic models for traffic flow resulting in a reduced space of microscopic velocities.  
*Kinet. Relat. Models*, 10(3):823-854, 2017.  
[10.3934/krm.2017033](https://doi.org/10.3934/krm.2017033)  
**19 Cit on Scopus, 17 Cit on WOS, IF 1.219, 5yrs IF 1.467, Q1-Q2, p 85.32-65.67**
  
11. G. Puppo, M. Semplice, A. Tosin, G. Visconti.  
Analysis of a multi-population kinetic model for traffic flow.  
*Commun. Math. Sci.*, 15(2):379-412, 2017.  
[dx.doi.org/10.4310/CMS.2017.v15.n2.a5](https://dx.doi.org/10.4310/CMS.2017.v15.n2.a5)  
**12 Cit on Scopus, 9 Cit on WOS, IF 1.451, 5yrs IF 1.424, Q1, p 75.60**
  
12. G. Puppo, M. Semplice, A. Tosin, G. Visconti.  
Fundamental diagrams in traffic flow: the case of heterogeneous kinetic models.  
*Commun. Math. Sci.*, 14(3):643-669, 2016.  
[dx.doi.org/10.4310/CMS.2016.v14.n3.a3](https://dx.doi.org/10.4310/CMS.2016.v14.n3.a3)  
**22 Cit on Scopus, 21 Cit on WOS, IF 1.425, 5yrs IF 1.367, Q1, p 76.67**

## Part XI– Other Publications

### XIA - Papers

13. G. Puppo, M. Semplice, G. Visconti.  
Quinpi: integrating conservation laws with CWENO implicit methods.  
*Communications on Applied Mathematics and Computation*, Accepted. 2021.
14. K. Bobzin, W. Wietheger, H. Heinemann, S. R. Dokhanchi, M. Rom, G. Visconti.  
Prediction of particle properties in plasma spraying based on machine learning.  
*J. Therm. Spray Tech.*, 30:1751-1764, 2021.  
10.1007/s11666-021-01239-2  
**0 Cit on Scopus, 0 Cit on WOS, IF -, 5yrs IF -, Q-, p -**  
(Data not available for 2021)
15. C. D. Hauck, M. Herty, G. Visconti.  
Qualitative Properties of Mathematical Model for Data Flow.  
*Netw. Heterog. Media*, 16(4):513-533, 2021.  
10.3934/nhm.2021015  
**0 Cit on Scopus, 0 Cit on WOS, IF -, 5yrs IF -, Q-, p -**  
(Data not available for 2021)
16. X. Gong, B. Piccoli, G. Visconti.  
Mean-field of optimal control problems for hybrid model of multilane traffic.  
*IEEE Control Systems Letters*, 5(6):1964-1969, 2021.  
10.1109/LCSYS.2020.3046540  
**0 Cit on Scopus, 0 Cit on WOS, IF -, 5yrs IF -, Q-, p -**  
(Data not available for 2021)
17. T. Trimborn, S. Gerster, G. Visconti.  
Spectral methods to study the robustness of residual neural networks with infinite layers.  
*Found. Data Sci.*, 2(3):257-278, 2020.  
10.3934/fods.2020012  
**0 Cit on WOS, IF -, 5yrs IF -, Q-, p -**  
(Data not available on Journal Citation Report)
18. M. Herty, L. Pareschi, G. Visconti.  
Mean field models for large data-clustering problems.  
*Netw. Heterog. Media*, 15(3):463-487, 2020.  
10.3934/nhm.2020027.  
**1 Cit on Scopus, 1 Cit on WOS, IF 1.213, 5yrs IF 1.384, Q4, p 17**
19. M. Herty, A. Tosin, G. Visconti, M. Zanella.  
Hybrid stochastic kinetic description of two-dimensional traffic dynamics.  
*SIAM J. Appl. Math.*, 78(5):2737-2762, 2018.  
doi.org/10.1137/17M1155909  
**11 Cit on Scopus, 8 Cit on WOS, IF 1.449, 5yrs IF 1.870, Q2, p 67**
20. M. Herty, A. Fazekas, G. Visconti.  
A two-dimensional data-driven model for traffic flow on highways.  
*Netw. Heterog. Media*, 13(2):217-240, 2018.  
10.3934/nhm.2018010  
**12 Cit on Scopus, 11 Cit on WOS, IF 0.871, 5yrs IF 1.082, Q4, p 17**

## XIB – Book Chapters

1. M. Herty, M. Rom, G. Visconti.  
Neuronale Netze und Filtermethoden im Praxiseinsatz (Neural networks and filter methods in practice) in Einsparung kostenintensiver Experimente und Simulationen durch Maschinelles Lernen. In D. Trauth, T. Bergs and W. Prinz, editors, *Monetarisierung von technischen Daten*, Springer Vieweg, pp. 691-709, 2021.  
[doi.org/10.1007/978-3-662-62915-4](https://doi.org/10.1007/978-3-662-62915-4)
2. M. Herty, G. Puppo, G. Visconti.  
From kinetic to macroscopic models and back.  
In G. Puppo and A. Tosin, editors, *Mathematical descriptions of traffic flow: micro, macro and kinetic models*, ICIAM2019 SEMA SIMAI Springer Series, 12:17-34. Springer International Publishing, 2021.  
[doi.org/10.1007/978-3-030-66560-9\\_2](https://doi.org/10.1007/978-3-030-66560-9_2)  
**0 Cit on Scopus, 0 Cit on WOS**
3. M. Herty, A. Tosin, G. Visconti, M. Zanella.  
Reconstruction of traffic speed distributions from kinetic models with uncertainties.  
In G. Puppo and A. Tosin, editors, *Mathematical descriptions of traffic flow: micro, macro and kinetic models*, ICIAM2019 SEMA SIMAI Springer Series, 12:1-16. Springer International Publishing, 2021.  
[doi.org/10.1007/978-3-030-66560-9\\_1](https://doi.org/10.1007/978-3-030-66560-9_1)  
**3 Cit on Scopus, 0 Cit on WOS**
4. L. Il Grande, E. Venturino, G. Visconti et al.  
Models of symbiotic associations in food chains.  
In Alejandro F. Camisã ao and Celio C. Pedroso, editors, *Symbiosis: Evolution, Biology and Ecological Effects*. Nova Science Publishers, Hauppauge, NY, 189-234, 2012.  
**3 Cit on Scopus**

## XIC – Proceedings

1. X. Gong, B. Piccoli, G. Visconti.  
Mean-field of optimal control problems for hybrid model of multilane traffic.  
*Proceedings of the American Control Conference*, 1485-1490, 2021.  
10.23919/ACC50511.2021.9482648  
**0 Cit on Scopus, 0 Cit on WOS**
2. M. Schwenzer, G. Visconti, M. Ay, T. Bergs, M. Herty, D. Abel.  
Identifying trending coefficients with an ensemble Kalman filter – A demonstration on a force model for milling.  
*IFAC-PapersOnLine*, 53(2):2292-2298, 2020.  
[doi.org/10.1016/j.ifacol.2020.12.1490](https://doi.org/10.1016/j.ifacol.2020.12.1490)  
**0 Cit on Scopus, 0 Cit on WOS**
3. M. Herty, G. Visconti.  
Analysis of risk levels for traffic on a multi-lane highway.  
*IFAC-PapersOnLine*, 51(9):43-48, 2018.  
[doi.org/10.1016/j.ifacol.2018.07.008](https://doi.org/10.1016/j.ifacol.2018.07.008)  
**3 Cit on Scopus, 3 Cit on WOS**

#### XID – PhD Thesis

1. G. Visconti.  
Single- and multi-population kinetic models for vehicular traffic reproducing fundamental diagrams and with low computational complexity.  
University of Insubria, 2016.  
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Ai sensi degli artt. 46 e 47 del D.P.R. 28 dicembre 2000, n. 445 e consapevole delle sanzioni penali nel caso di dichiarazioni non veritiere e falsità degli atti, richiamate dall'art. 76 del D.P.R. 28 dicembre 2000, n. 445, il sottoscritto Giuseppe Visconti dichiara sotto la propria responsabilità che le informazioni indicate corrispondono al vero.