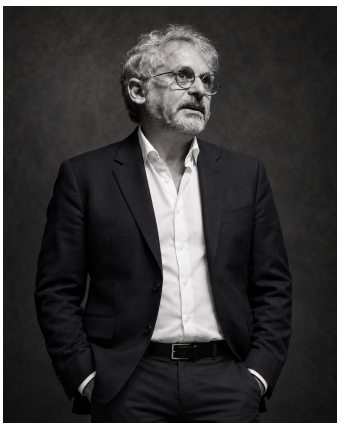
CURRICULUM VITAE / 2026



Mauro Martino

PhD / Cambridge, Massachusetts

Artificial intelligence, data visualization and artistic practice.

Founder of Physics for AI Lab
MIT–IBM Computing Research Lab
Principal Research Staff Member, IBM Research
Professor of Practice, Northeastern University

Scientist, designer and artist working across machine learning, visual analytics and human–AI interaction. Research connects efficient reasoning and memory in neural networks, controllable generative models, and the analysis of cultural and social systems. Artistic practice translates data and computational models into interactive experiences, films and physical sculptures.

Work spans scientific publications, patented visualization systems, university teaching and international exhibitions, including the Venice Architecture Biennale, MEET Digital Culture Center, ZKM and Ars Electronica. Recent projects include *Atomic Reverberations*, a bronze installation at the MIT–IBM lab, and *Universalizable*, an interactive exploration of the collective effects of everyday choices.

CONTACT

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IBM Research profile
Google Scholar

RESEARCH INTERESTS

Generative AI · Efficient reasoning
Neural memory · Visual analytics
Human–AI interaction · Network science
Computational design · AI art

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01 / RESEARCH AND ACADEMIC EXPERIENCE

Appointments & education

Current appointments

Current
Founder of Physics for AI Lab
MIT–IBM Computing Research Lab · Cambridge, MA
Principal Research Staff Member, IBM Research.

2017–present
Professor of Practice (part-time), Art + Design
Northeastern University · Boston, MA

Previous appointments

Founded 2017
Founder, Visual Artificial Intelligence Lab
Research Manager and Principal Research Staff Member · IBM Research / MIT–IBM Watson AI Lab

2013–2017
Manager
IBM Watson Group · New York, NY

2011–2014
Research Associate
Institute for Quantitative Social Science, Harvard University · Cambridge, MA

2011–2013
Assistant Research Professor
Center for Complex Network Research and Lazer Lab, Northeastern University

2010–2011
Postdoctoral Research Associate
Center for Complex Network Research, Northeastern University; Harvard Kennedy School

2009–2010
Postdoctoral Research Affiliate in Data Visualization
Senseable City Lab, Massachusetts Institute of Technology

2008–2009
Research Affiliate in Data Visualization
Senseable City Lab, Massachusetts Institute of Technology

2006–2008
Teaching Assistant
Faculty of Design, Politecnico di Milano

2005
Research Assistant
Clarion, Research and Development · Tokyo, Japan

Education

2006–2009
PhD in Design and Technologies
Politecnico di Milano
Thesis: Urban Interaction Design: Digital Urban Simulation and Interaction. Research at MIT Senseable City Lab with Carlo Ratti.

2003–2006
MSc in Product Service Systems Design, with honors
Politecnico di Milano

2000–2003
BSc in Product Design, with honors
Politecnico di Milano

02 / COURSES, MENTORING AND ACADEMIC LEADERSHIP

Teaching & service

Teaching and mentoring

2026	**AI for School, masterclass** NextGen AI Summit, Villa Erba · Cernobbio, 22 October With Sümeyye Hatice Eral; Ministry of Education and Merit.
2020; 2023	**Artificial Intelligence for Creativity and Design** Northeastern University · recurring course, documented in 2020 and 2023
2019	**Deep Learning for Art, Aesthetics, and Creativity** Design workshop, MIT
2019	**Methods for Computational Social Science** Summer school, GESIS – Leibniz Institute for the Social Sciences · Berlin
2019–2020	**Innovation Workshop mentor** Skolkovo Institute of Science and Technology · Moscow
2018	**Visual Cognition** Northeastern University · spring and fall semesters
2017	**Data Visualization Studio** Northeastern University
2016	**Visualizing Data** Design workshop, Skolkovo Institute of Science and Technology
2012–2013	**Network Visualization, teaching assistant** Northeastern University
2012	**Teacher and Academic Director, summer school** Université d'été · Yverdon-les-Bains, Switzerland
2011	**Design workshop** Tec Art Eco – Arts, Environment and Technology · Lugano
2010	**Visualizing Urban Data** Design workshop, MIT
2005–2007	**Design teaching assistantships** Politecnico di Milano Theoretical Methods for Design Research; Product Service System Design; Faculty of Design.

Languages

Italian: native. English: fluent, written and spoken. Portuguese, German and Russian: basic knowledge.

02 / COMMITTEES, JURIES AND ADVISORY ROLES

Academic & professional service

2025–2026	**Program Committee member** IEEE VIS Arts Program (VISAP)
2025	**Co-moderator, AI and Artistic Autonomy** ACM SIGGRAPH Digital Arts SPARKS · 21 March
2024	**Co-organizer, Art, Visual Illusions, and Data Visualization** Dagstuhl Seminar 24301 · Schloss Dagstuhl, Germany Co-organized with Christophe Hurter, Claus-Christian Carbon and Bernice E. Rogowitz. Seminar report published in 2025.
2022	**Jury member and trophy designer** Fuorisalone Award · Milan
2020–2021	**Jury member** Re:Humanism Art Prize
2020	**Scientific Committee member** MoVIS Workshop, IEEE VIS
2020	**Scientific Committee member** HAI-GEN: Human–AI Co-Creation with Generative Models, ACM IUI
2019–2020	**Scientific Committee member** IEEE VIS Arts Program (VISAP)
2018–2020	**Jury member** The Webby Awards
2017; 2020	**Jury member** Fast Company, Innovation by Design Awards
2019	**Design Ambassador** Brera Design Week / Fuorisalone · Milan
2017–2019	**Advisor** Monet GmbH LLC · London
2018	**PhD Committee member** University of Lausanne
2015	**Founding member** Lincoln Center Global Exchange · New York
2012	**Academic Director** Université d'été summer school · Yverdon-les-Bains
2011	**Organizing Committee member** First Workshop on Pervasive Urban Applications (PURBA) · San Francisco
2011	**Workshops Chair** Tec Art Eco – Arts, Environment and Technology · Lugano
2010	**Workshops Chair** International Conference on User Centric Media · Palma de Mallorca

03 / SELECTED ENGAGEMENTS / 2026–2024

Invited talks & symposia

Oct 2026
Oltre la media: dove finiscono gli algoritmi e comincia l'originalità dell'arte
NextGen AI Summit · Villa Erba, Cernobbio, Italy
Panel with Francesco D'Isa; AI for School masterclass the following day.

Sep 2026
Human Driven AI Summit
Nexus Pompeii Conference Center · Pompei, Italy
Invited speaker, Science & Life session.

Jun 2026
Artistic Interlude
The New Atlas of Digital Art: Culture Dome · MEET, Milan

Apr 2026
Co-Creating with Generative Models: A Shared Practice Between Computer Science and Design
Instituto PUC-Behring de Inteligência Artificial, PUC-Rio · Rio de Janeiro

Oct 2025
Disseminating scientific knowledge through data visualization
Designing with Data · DensityDesign Lab, Politecnico di Milano

Aug 2025
AI and Artistic Autonomy Overview
SIGGRAPH Village Talk · SPARKS 2025 in Review

Mar 2025
AI and Artistic Autonomy
Co-moderator, ACM SIGGRAPH Digital Arts SPARKS

Nov 2024
Arts Plural
Plenary panel, ELIA Biennial Conference · NABA, Milan

Jun 2024
Multi-Agent Strategies in Interacting with Large Language Models
NECSTSpecial Talk · DEIB, Politecnico di Milano

Mar 2024
Urbana Verba — Generative Urban Cinema
Keynote, HAI-GEN Workshop, ACM IUI · Greenville, SC

Feb 2024
Codici d'archivio. Guardare è digitare
Biennale Library · Venice, Italy

03 / SELECTED ENGAGEMENTS / 2023–2010

Invited talks & symposia

Dec 2023	**Generativism: The impact of generative models on aesthetics and the human experience** Keynote, CUDAN Conference · Tallinn University
Sep 2023	**From Dataism to Generativism: A new mindset for the university of tomorrow** Ars Electronica × IDSA FOUNDING LAB · Linz, Austria
Mar 2023	**Design and AI** Carleton University · Ottawa, Canada
Jan–Feb 2023	**Perception in Network Visualization** Participant, Dagstuhl Seminar 23051 · Germany
Sep 2022	**Meet the Media Guru — The Artist** MEET Digital Culture Center · Milan
Sep 2022	**Metaverse, web3, and the NFT market** Keynote, IEEE CyberSciTech / PICom / DASC / CDBCom
2020	**HarvardxDesign; Armonicamente 4.0** ConflictxDesign, Harvard University, February; Arte, Scienza e Tecnologia, July.
2019	**Design Your Creativity — organizer and speaker** Luiss Hub for makers, Milan Workshop and forum on human creativity and deep neural networks. Other talks: MIT Press conversation with Arthur I. Miller; Accurat; Broad Institute; GANocracy, MIT.
2018	**ICT Forum; RIXC Art Science Festival** Kilometro Rosso, Bergamo; Global Control, National Library of Latvia, Riga.
2017	**Data visualization and artificial intelligence** University College London. Other engagements: Data Natives, City University of London; Brera Design Days, Milan; World Resources Forum, Geneva.
2016	**TEDxRiga: Dare to Be; CNS Center** Riga, Latvia; Indiana University, Bloomington.
2015	**Systems Analysis; DATA DRIFT; Visualization and Society** Vienna; RIXC Art Science Festival, Riga; EPFL, Lausanne. Also: Big Data Fest, New York Hall of Science.
2014	**Skoltech lectures on Data Visualization** Skolkovo Institute of Science and Technology · Moscow
2013	**Research and visualization seminars** University of Massachusetts Boston; IBM Research Colloquium, São Paulo; World Economic Forum Workshop on the Design of Complexity, MIT; University of Houston.
2012	**Creating an Intelligent Identification System for the City** Academic Director and organizer, Université d'été · Yverdon-les-Bains
2011–2010	**TEDxCambridge THRIVE; Tec Art Eco; MIT Enterprise Forum** Harvard University and Lugano (2011); Auto-ID & Sensing Solutions, MIT (2010).

04 / COMPETITIVE AWARDS, FINALIST SELECTIONS AND PROJECT SUPPORT

Awards & distinctions

2023 **Italian Council — 12th edition**
Italian Ministry of Culture
Selected international-promotion project: Mapping NFTs Revolution, with MEET Digital Culture Center, for Ars Electronica.

2020 **Webby Award + Webby People's Voice Award**
Winner, NetArt · 150 Years of Nature

2020 **Innovation by Design Awards**
Finalist, Data Design · 150 Years of Nature · Fast Company

2020 **MUSE Creative Awards**
Silver, Website – Art & Design · 150 Years of Nature

2019 **Webby People's Voice Award**
Winner, NetArt · AI Portraits

2019 **Innovation by Design Awards**
Finalist, Experimental · AI Portraits · Fast Company

2019 **MUSE Creative Awards**
Platinum, Website – Technology / Science · AI Portraits

2017 **Vizzies Visualization Challenge**
Video — Expert's Choice winner · Network Earth
National Science Foundation / Popular Science.

2017 **Kantar Information is Beautiful Awards**
Honourable Mention, Unusual · Forma Fluens

2016 **Innovation by Design Awards**
Finalist, Websites & Platforms · Watson News Explorer · Fast Company

2016 **Kantar Information is Beautiful Awards**
Silver, Commercial Project · IBM Watson News Explorer

2015 **Kantar Information is Beautiful Awards**
Gold, Data Visualization · The Rise of Partisanship in the U.S. House of Representatives

2015 **Kantar Information is Beautiful Awards**
Honourable Mention, Motion Infographic · Charting Culture

2006–2009 **National scholarship for PhD studies**
Politecnico di Milano

2003–2004 **Socrates scholarship for graduate studies**
Politecnico di Milano

05 / RECENT PROJECTS AND COMMISSIONS

Projects & creative practice

Current

Universalizable
Interactive data and scenario platform
Explores the collective climate and resource effects of everyday choices. Developed with Eva Mayr, Rita Borgo, Yuri Engelhardt and Margit Pohl; grounded in the 2026 From Data to Action research.

2025

Atomic Reverberations
Commissioned bronze sculpture · MIT–IBM lab, Cambridge
Transforms relationships among IBM research publications into a physical network, combining AI and generative design.

2024

Sevilla Canon Inverso
AI film · Urbana Verba
Created and directed by Mauro Martino; interprets Seville through literary texts. Presented at Setas de Sevilla and CICUS, Universidad de Sevilla.

2024

Boston Creativity Hub
AI-generated video
Presented at the opening of the Festival of Italian Creativity, Consulate General of Italy, Federal Reserve Building, Boston, 14 November.

2024

Me-Me
Generative AI artwork
Explores possible selves and alternative lives. Presented in AI Yoga per Intelligenze Artistiche, MEET, Milan.

2024

L'immortalità del pensiero
AI artwork · Forever Young: The Dorian Gray Syndrome
Exhibited at MEET Digital Culture Center, Milan.

2023

Milano Fabbrica di Futuro
Audiovisual installation · Urbana Verba
AI-generated urban cinema developed from literary descriptions of Milan. Commissioned for SEA Milan Airports, curated by MEET; presented at Malpensa and Ars Electronica.

2023

Exercises in Style
Text-to-video artwork
Visual interpretations of Raymond Queneau's narrative variations; exhibited at Burlington City Arts, Vermont.

2022

Mapping the NFT Revolution / Understanding the Invisible
Immersive data film
Connects NFT market research, network visualization, generative imagery and sound. MEET, Milan; subsequently Ars Electronica, Linz (2023).

2022

Fuorisalone Award trophy
Commissioned network sculpture
Designed the inaugural award's data-driven 3D-printed trophy, presented with an associated NFT.

05 / AI ART, VISUAL ANALYTICS AND DATA STORYTELLING / 2021–2014

Projects & creative practice

2021 **Strolling Cities**
Generative urban video installation
Text- and voice-responsive explorations of urban space, presented at the Italian Pavilion of the Venice Architecture Biennale.

2021 **Mapping the NFT revolution**
Scientific data visualization
Analysis of NFT market structure, trading networks and visual features, accompanying the Scientific Reports paper.

2020 **Latent Compass; Vox2Vox**
Human–AI interaction and 3D generation
Visual navigation of GAN latent spaces; generative transformation of 3D topology while preserving overall shape.

2019 **150 Years of Nature**
Interactive map, film and journal cover
Visualizes relationships among scientific publications to mark Nature's 150th anniversary.

2019 **AI Portraits Pro; Paper Graph**
Generative portraiture and literature exploration
Portrait synthesis inspired by historical painting; co-citation, citation and co-authorship network interfaces.

2018 **AI Portraits**
Interactive generative portrait application
Explores machine interpretations of identity and visual representation.

2018 **WonderNet / Vox2Net**
Physical network sculpture
Translates 3D forms and networks into sculptures, extending network visualization into physical space.

2017 **Forma Fluens**
Drawing-based visual analysis
Superimposes large collections of drawings to examine shared forms and cultural variation.

2016 **Network Earth; Science Paths / Success in Science**
Data films and scientific visualization
Ecological network resilience; visual exploration of scientific careers and impact.

2015 **Watson News Explorer; The Rise of Partisanship**
Interactive news networks and political visualization
Real-time news relationships; longitudinal patterns of polarization in the U.S. House of Representatives.

2015 **TED Watson; Watson 500; VoroGraph**
Visual analytics systems
Conversational discovery of TED content; corporate annual-report exploration; epidemic analysis.

2014 **Charting Culture**
Data film
Visualizes cultural mobility through the birth and death locations of notable individuals, accompanying A network framework of cultural history.

05 / LABORATORY PORTFOLIO AND EARLY WORK

Research & design projects

Visual AI Lab portfolio

2020 — **Multimodal Story Design; Human–Machine Co-Creation**
Generative storytelling and interfaces for collaborative creativity.

2020 — **Saliency Explorer**
Visual exploration of model behavior using annotations and saliency methods.

2020 — **Accelerated Discovery: RXNMapper; COVID-19 Explorer**
Visualization for atom mapping and molecular discovery workflows.

2020 — **Explore IBM Strategies**
Executive visualizations of corporate strategy over the preceding decade.

2019–2020 — **AutoAI: multivariate time-series forecasting and knowledge augmentation**
Visual analytics for model selection, evaluation and relationships among variables.

2018–2020 — **Understanding GANs; GANPaint**
Model interpretability and object-level image editing through generative networks.

Early projects

2013 — **Experience JAM**
Visualization of a large-scale IBM client-service discussion.

2012 — **MoneyBombs; Super PAC; Forest of Advocacy**
Visualization and sonification of U.S. political donations and campaign spending.

2012 — **Boston Area Research; Interactome; CineData**
Urban service-request patterns; disease-related protein networks; political-network storytelling.

2011 — **Place Pulse; Control**
Crowdsourced perceptions of urban environments; visualization of network controllability.

2010 — **Borderline / Redrawing the Map**
Telecommunications networks as a basis for mapping regional interactions in Great Britain.

2009 — **AIDA: Affective Intelligent Driving Agent**
MIT Senseable City Lab / Volkswagen · intelligent navigation and in-car interaction.

2009 — **Obama | One People**
Visualization of the geographical reach of the U.S. presidential inauguration.

2008 — **Ocean of Information; Real Time Copenhagen**
Urban mobility analysis and interactive concepts for city sustainability.

06 / RECENT PRESENTATIONS / 2025–2022

Exhibitions & collections

Permanent installation and collection

2025 — **Atomic Reverberations**
MIT–IBM lab · Cambridge, MA
Commissioned bronze installation.

Collection — **Forma Fluens**
Ars Electronica Center · Linz, Austria
Permanent collection.

Recent exhibitions and screenings

Nov 2024 — **Sevilla Canon Inverso**
Setas de Sevilla; CICUS, Universidad de Sevilla · Spain

Nov 2024 — **Boston Creativity Hub**
Festival of Italian Creativity · Consulate General of Italy, Boston
Screening at the Federal Reserve Building, Morris Auditorium, 14 November.

Sep 2024 — **AI Yoga per Intelligenze Artistiche**
MEET Digital Culture Center · Milan
Me-Me. Curated by Valerio Borgonuovo; 19–29 September.

Apr–May 2024 — **L'opera d'arte nell'epoca dell'Intelligenza Artificiale**
Parma 360 · Palazzo Pigorini and Torrione Visconteo, Parma
Group exhibition, 6 April–19 May.

Mar–Jun 2024 — **Forever Young: The Dorian Gray Syndrome**
MEET Digital Culture Center · Milan
L'immortalità del pensiero. Curated by Maria Grazia Mattei and Clément Thibault; 14 March–2 June.

2023–2024 — **Milano Fabbrica di Futuro**
Malpensa Airport, Terminal 1, Porta di Milano
Nice to MEET You, MEET / SEA Milan Airports; September 2023–January 2024.

Dec 2023 — **Milano Fabbrica di Futuro**
CUDAN Conference art exhibition · Tallinn University
14–16 December.

Sep 2023 — **AI-Generated Storytelling / Mapping the NFTs Revolution**
Ars Electronica Festival · Linz
MEET presentation and Deep Space 8K; preview of Milano Fabbrica di Futuro.

Feb–May 2023 — **Co-Created: The Artist in the Age of Intelligent Machines**
BCA Center, Burlington City Arts · Vermont
Exercises in Style. Guest curator Chris Thompson; 10 February–6 May.

Sep 2022 — **Mapping the NFT Revolution**
MEET Digital Culture Center · Milan
Immersive installation.

06 / SELECTED EXHIBITION HISTORY / 2021–2009

Exhibitions & collections

2021–2022	**BarabásiLab. Hidden Patterns** ZKM | Center for Art and Media · Karlsruhe Network visualizations and sculptures; 1 May 2021–3 April 2022.
2021	**XVII Venice Architecture Biennale — Italian Pavilion** Venice, Italy Strolling Cities. Curated by Alessandro Melis; 22 May–21 November.
2020–2021	**BarabásiLab. Hidden Patterns: The Language of Network Thinking** Ludwig Museum · Budapest Network visualizations and sculptures; curated by József Készman.
2018	**Data and Identities — IEEE VISAP** Berlin, Germany · WonderNet. Curated by Paul Heinicker and Paolo Ciuccarelli.
2018	**123 DATA** Fondation Groupe EDF, Paris · Forma Fluens; May–October.
2017–2018	**AI Art / Machine Learning for Creativity and Design** NeurIPS art and workshop programmes Selected presentations: Forma Fluens, DAVID, AI Self Portrait and Vox2Net.
2017	**Sustain & Decay — IEEE VISAP** Phoenix, AZ · Forma Fluens. Curated by Yoon Chung Han and Esteban Garcia Bravo.
2016	**OPEN FIELDS** RIXC Art Science Festival, Riga · Network Earth.
2015	**DATA DRIFT; Global Exchange** kim? Contemporary Art Center, Riga; Lincoln Center, New York · Charting Culture.
Since 2015	**Places & Spaces: Mapping Science** International traveling exhibition Charting Culture; Science Paths; Watson News Explorer; 150 Years of Nature.
2012	**FuturePerfectSweden, Ö Festival** Vaxholm, Sweden · Borderline.
2011	**PULS – Hacking the City; FutureEverything** MAD Emergent Art Center, Eindhoven; Manchester, UK · Borderline.
2011	**Sensing Place, Placing Sense; Sustainable Development** Ars Electronica, Linz; MIT Press Online Museum · Place Pulse; Obama | One People.
2010	**Serpentine Map Marathon** Serpentine Gallery, London · Borderline. Curated by Hans Ulrich Obrist.
2010	**Retrospective of the Senseable City Lab** Grey Area Foundation for the Arts, San Francisco · Borderline; Obama | One People.
2009	**Ecological Urbanism** Harvard Graduate School of Design, Cambridge, MA · Obama | One People.

07 / ARTICLES AND CONFERENCE CONTRIBUTIONS

Scientific publications

01 **From Data to Action: Applying Psychological Theories to Climate Visualisation Design**
Eva Mayr; Rita Borgo; Yuri Engelhardt; **Mauro Martino**; Margit Pohl
Visualising Climate 2026 Proceedings, Bologna, 4–6 November 2026 · 2026
Accepted and revised conference paper; Zenodo deposit.

02 **ESPLoRA: Enhanced Spatial Precision with Low-Rank Adaption in Text-to-Image Diffusion Models for High-Definition Synthesis**
Andrea Rigo; Luca Stornaiuolo; **Mauro Martino**; Bruno Lepri; Nicu Sebe
Pattern Recognition (ICPR 2026), Lecture Notes in Computer Science 16817, pp. 493–508 · 2026

03 **The Role of Interface Design on Prompt-mediated Creativity in Generative AI**
Maddalena Torricelli; **Mauro Martino**; Andrea Baronchelli; Luca Maria Aiello
Proceedings of the 16th ACM Web Science Conference (WebSci '24), pp. 235–240 · 2024

04 **Empirical Evidence on Conversational Control of GUI in Semantic Automation**
Daniel Karl I. Weidele; **Mauro Martino**; Abel N. Valente; Gaetano Rossiello; Hendrik Strobelt; Loraine Franke; Kathryn Alvero; Shayenna Misko; Robin Auer; Sugato Bagchi; Nandana Mihindukulasooriya; Md. Faisal Mahbub Chowdhury; Gregory Bramble; Horst Samulowitz; Alfio Gliozzo; Lisa Amini
Proceedings of the 29th International Conference on Intelligent User Interfaces (IUI '24), pp. 869–885 · 2024

05 **Heterogeneous rarity patterns drive price dynamics in NFT collections**
Amin Mekacher; Alberto Bracci; Matthieu Nadini; **Mauro Martino**; Laura Alessandretti; Luca Maria Aiello; Andrea Baronchelli
Scientific Reports 12, 13890 · 2022
Author correction published 12 September 2022.

06 **Mapping the NFT revolution: market trends, trade networks, and visual features**
Matthieu Nadini; Laura Alessandretti; Flavio Di Giacinto; **Mauro Martino**; Luca Maria Aiello; Andrea Baronchelli
Scientific Reports 11, 20902 · 2021

07 **3D Topology Transformation with Generative Adversarial Networks**
Luca Stornaiuolo; Nima Dehmamy; Albert-László Barabási; **Mauro Martino**
Proceedings of the 11th International Conference on Computational Creativity (ICCC '20), pp. 461–468 · 2020

08 **The Panta Rhei: Modernizing the Marquee**
Megan Monroe; **Mauro Martino**
Human-Computer Interaction – INTERACT 2017, Part III, Lecture Notes in Computer Science 10515, pp. 366–373 · 2017

09 **Quantitative, Qualitative, and Historical Urban Data Visualization Tools for Professionals and Stakeholders**
Cody Dunne; Carl Skelton; Sara Diamond; Isabel Meirelles; **Mauro Martino**
Distributed, Ambient and Pervasive Interactions (DAPI 2016), Lecture Notes in Computer Science 9749, pp. 405–416 · 2016

10 **The Rise of Partisanship and Super-Cooperators in the U.S. House of Representatives**
Clio Andris; David Lee; Marcus J. Hamilton; **Mauro Martino**; Christian E. Gunning; John Armistead Selden
PLOS ONE 10(4), e0123507 · 2015

11 **S&P360: Multidimensional Perspective on Companies from Online Data Sources**
Michele Berlingerio; Stefano Braghin; Francesco Calabrese; Cody Dunne; Yiannis Gkoufas; **Mauro Martino**; Jamie Rasmussen; Steven Ross
Machine Learning and Knowledge Discovery in Databases (ECML PKDD 2015), Lecture Notes in Computer Science 9286, pp. 320–324 · 2015

12 **Readability metric feedback for aiding node-link visualization designers**
Cody Dunne; Steven I. Ross; Ben Shneiderman; **Mauro Martino**
IBM Journal of Research and Development 59(2/3), pp. 14:1–14:16 · 2015

13 **Prospect Theory for Online Financial Trading**
Yang-Yu Liu; Jose C. Nacher; Tomoshiro Ochiai; **Mauro Martino**; Yaniv Altshuler
PLOS ONE 9(10), e109458 · 2014

14 **A network framework of cultural history**
Maximilian Schich; Chaoming Song; Yong-Yeol Ahn; Alexander Mirsky; **Mauro Martino**; Albert-László Barabási; Dirk Helbing
Science 345(6196), pp. 558–562 · 2014

15 **Redrawing the Map of Great Britain from a Network of Human Interactions**
Carlo Ratti; Stanislav Sobolevsky; Francesco Calabrese; Clio Andris; Jonathan Reades; **Mauro Martino**; Rob Claxton; Steven H. Strogatz
PLOS ONE 5(12), e14248 · 2010

16 **Ocean of Information: Fusing Aggregate & Individual Dynamics for Metropolitan Analysis**
Mauro Martino; Francesco Calabrese; Giusy Di Lorenzo; Clio Andris; Liang Liu; Carlo Ratti
Proceedings of the 15th International Conference on Intelligent User Interfaces (IUI '10), Hong Kong, pp. 357–360 · 2010

17 **Pulse of the City: Visualizing Urban Dynamics of Special Events**
Andrea Vaccari; **Mauro Martino**; Francisca Rojas; Carlo Ratti
GraphiCon 2010, 20th International Conference on Computer Graphics and Vision, St. Petersburg · 2010

Earlier conference contributions

18 **CineData: Using Storytelling in Dynamic Visualizations of Political Networks**
Mauro Martino; Sasha Goodman; Yu-Ru Lin; David Lazer
Political Networks Conference, Boulder, CO · 2012

19 **Why Temporal Resolution Matters in Epidemic Modeling?**
W. Dong; **Mauro Martino**; David Lazer
NetSci, Evanston, IL · 2012

20 **Syn(c)ity: Visualizing the Potential of a Predictive In-Car Recommendation System**
Mauro Martino; Kristian Kloeckl; Giusy Di Lorenzo; J. Dunnam; E. R. Kang; Carlo Ratti
Internet of Things Conference, Tokyo · 2010

07 / WORKSHOP PAPERS, DEMONSTRATIONS AND REPORTS

Scientific publications

21 **Boltzmann Routing for Energy-Compatible Mixture of Experts**
Bharat Runwal; Bishwajit Saha; Benjamin Hoover; **Mauro Martino**; Nima Dehmamy
ICLR 2026 workshop (New Frontiers in Associative Memories / NFAM) · 2026

22 **Flow Reasoning Models: Turning Flows Into Efficient Recurrent Reasoners**
Alec Helbling; Andrey Bryutkin; **Mauro Martino**; Duen Horng Chau; Nima Dehmamy; Hendrik Strobelt
DiffuLM Workshop, NeurIPS 2026 · 2026
Accepted workshop paper (poster). Workshop scheduled 11 December 2026, Sydney.

23 **Psychology-Enabled Visual Communication Related to Climate Change to Encourage Climate-Friendly Behavior**
Rita Borgo; Yuri Engelhardt; Eva Mayr; **Mauro Martino**; Margit Pohl
From Psychology Enabled Visualization to Visualization Enabled Psychology (Dagstuhl Seminar 25511), Dagstuhl Reports 15(12), section 6.1, pp. 52–66 · 2026
Contribution to the 2025 seminar report, published July 2026.

24 **Art, Visual Illusions, and Data Visualization (Dagstuhl Seminar 24301)**
Christophe Hurter; Claus-Christian Carbon; **Mauro Martino**; Bernice E. Rogowitz
Dagstuhl Reports 14(7), pp. 81–114 · 2025
Seminar report; published February 2025 for the 2024 seminar.

25 **Conversational GUI for Semantic Automation Layer**
Daniel Karl I. Weidele; Gaetano Rossiello; Gregory Bramble; Abel N. Valente; Sugato Bagchi; Faisal Chowdhury; **Mauro Martino**; Nandana Mihindukulasooriya; Haritha Ananthakrishnan; Hendrik Strobelt; Hima Patel; Alfio Gliozzo; Owen Cornec; Ankush Gupta; Sameep Mehta; Manish Kesarwani; Horst Samulowitz; Oktie Hassanzadeh; Arvind Agarwal; Lisa Amini
ISWC 2023 Posters, Demos and Industry Tracks, CEUR Workshop Proceedings 3632, paper 514 · 2023
Demonstration / interactivity paper.

26 **Latent Compass: Creation by Navigation**
Sarah Schwettmann; Hendrik Strobelt; **Mauro Martino**
NeurIPS 2020 workshop · 2020

27 **Deepling: A Visual Interpretability System for Convolutional Neural Networks**
Daniel Karl I. Weidele; Hendrik Strobelt; **Mauro Martino**
SysML 2019 · 2019
Demonstration / interactivity paper.

28 **Vox2Net: From 3D Shapes to Network Sculptures**
Nima Dehmamy; Luca Stornaiuolo; **Mauro Martino**
NeurIPS 2018 Workshop on Machine Learning for Creativity and Design · 2018

29 **VoroGraph: Visualization Tools for Epidemic Analysis**
Cody Dunne; Michael Muller; Nicola Perra; **Mauro Martino**
CHI '15 Extended Abstracts on Human Factors in Computing Systems, pp. 255–258 · 2015
Demonstration / interactivity paper.

30 **Catching fish in the stream: real time analysis of audience behavior in social media**
Yu-Ru Lin; Drew Margolin; Brian Keegan; **Mauro Martino**; Sasha Goodman; David Lazer
CSCW '13 Companion, pp. 187–190 · 2013
Conference companion paper.

07 / PUBLIC RESEARCH MANUSCRIPTS / 2026–2020

Preprints & current research

31 **Post-Training Large Language Models with LLMON**
Basel Shbita; Michael Hind; Chad DeLuca; Nathan Fulton; Shubhi Asthana; Farhan Ahmed; Anisa Halimi; Yada Zhu; **Mauro Martino**; David Cox; Dan Gutfreund
arXiv:2610.38120 · 2026

32 **Billions of Sketches Reveal Hidden Cultural Variation in Human Concepts**
Arianna Pera; **Mauro Martino**; Nima Dehmamy; Douglas Guilbeault; Luca Maria Aiello; Andrea Baronchelli
arXiv:2607.07267 · 2026

33 **Tensor Memory: Fixed-Size Recurrent State for Long-Horizon Transformers**
Kabir Swain; Sijie Han; Daniel Karl I. Weidele; **Mauro Martino**; Antonio Torralba
arXiv:2605.27686 · 2026

34 **Hurwitz Quaternion Multiplicative Quantization for KV Cache Compression**
Kabir Swain; Sijie Han; Daniel Karl I. Weidele; **Mauro Martino**; David Cox; Antonio Torralba
arXiv:2605.27646 · 2026

35 **Tensor Cache: Eviction-conditioned Associative Memory for Transformers**
Kabir Swain; Sijie Han; Daniel Karl I. Weidele; **Mauro Martino**; Antonio Torralba
arXiv:2605.22884 · 2026

36 **POCI-Diff: 3D-Layout Guided Diffusion for Controllable Synthetic Surveillance Data Generation**
Andrea Rigo; Luca Stornaiuolo; Weijie Wang; **Mauro Martino**; Bruno Lepri; Nicu Sebe
arXiv:2601.14056 · 2026

37 **Small Models, Smarter Learning: The Power of Joint Task Training**
Csaba Both; Benjamin Hoover; Hendrik Strobelt; Dmitry Krotov; Daniel Karl I. Weidele; **Mauro Martino**; Nima Dehmamy
arXiv:2505.18369 (revised 2 February 2026) · 2025

38 **FairyTailor: A Multimodal Generative Framework for Storytelling**
Eden Bensaid; **Mauro Martino**; Benjamin Hoover; Hendrik Strobelt
arXiv:2108.04324 · 2021

39 **Covering the News with (AI) Style**
Michele Merler; Cicero Nogueira dos Santos; **Mauro Martino**; Alfio M. Gliozzo; John R. Smith
arXiv:2002.02369 · 2020

08 / GRANTED U.S. PATENTS AND PUBLISHED APPLICATIONS

Patents

Published patent application

9 Jul 2026 — **Enhancing accuracy of information provided by artificial intelligence chatbots to address information hallucination**
US 2026/0195306 A1 · published application
Inventors: Uri Kartoun; Sophie Batchelder; Krishnan Sugavanam; Mauro Martino. Assignee: IBM.

Granted patents

16 May 2023 — **Document security enhancement**
US 11,651,097 B2
Inventors: Mauro Martino; Steven I. Ross; Fang Lu; Uri Kartoun. Assignee: IBM.

9 Nov 2021 — **Automatic generation of content using multimedia**
US 11,170,270 B2
Inventors: Michele Merler; Mauro Martino; Cicero Nogueira dos Santos; Alfio Massimiliano Gliozzo; John R. Smith. Assignee: IBM.

Interactive visualization — granted patents

Inventors: Cody G. Dunne; T. Alan Keahey; Mauro Martino; Deok Gun Park. Assignee: IBM.

23 Mar 2021 — **Interactive visualization**
US 10,956,390 B2

1 Oct 2019 — **Interactive visualization**
US 10,430,436 B2

24 Sep 2019 — **Interactive visualization**
US 10,423,593 B2

30 Jul 2019 — **Interactive visualization**
US 10,366,061 B2

25 Jun 2019 — **Interactive visualization**
US 10,331,636 B2

09 / AUTHORED TEXTS, VISUAL CONTRIBUTIONS AND FEATURED WORK

Books & editorial contributions

Authored chapters and reports

40 **Generativism. The Impact of Generative Models on Aesthetics and the Human Experience**
Mauro Martino
Beyond Matter, Within Space: Curatorial and Art Mediation Techniques on the Verge of Virtual Reality, pp. 391–399 · 2023
In the volume edited by Lívia Nolasco-Rózsás and Marianne Schädler. Hatje Cantz.

41 **Meaning and Perspectives in the Digital Humanities**
Lora Aroyo; Rens Bod; Antal van den Bosch; Irene Greif; Antske Fokkens; Charles van den Heuvel; Inger Leemans; Susan Legêne; **Mauro Martino**; Nat Mills; Merry Morse; Michael Muller; Maarten de Rijke; Steven Ross; Piek Vossen; Chris Welty
White paper for the Center for Humanities and Technology (CHAT), University of Amsterdam, VU University Amsterdam and Royal Netherlands Academy of Arts and Sciences · 2014

42 **Senseable City (Digital Urban Modeling and Simulation)**
Mauro Martino; Rex Britter; Christine Outram; Caitlin Zacharias; Assaf Biderman; Carlo Ratti
MIT Senseable City Lab · working paper · 2010

Editorial and arts contributions

2020 **Forma Fluens — IEEE VIS 2016 and 2017 Arts Program Gallery**
Leonardo 53(1), p. 19 · gallery contribution
With Hendrik Strobelt and Owen Cornec.

2019 **150 Years of Nature**
Nature · visual project, film and cover

2018 **WonderNet – Physicality of Networks**
IEEE VISAP, Data and Identities exhibition catalogue
With Alice Grishchenko, Nima Dehmamy, Hendrik Strobelt and Albert-László Barabási.

2017 **Forma Fluens**
IEEE VISAP, Sustain & Decay exhibition
With Hendrik Strobelt and Owen Cornec.

2015 **10 Years of Nature Physics**
Nature Physics · visual contribution

2012 **Place Pulse**
In Inscribing a Square: Urban Data as Public Space, pp. 66–67
Project contribution with Phil Salesses, Anthony DeVincenzi and César Hidalgo. Edited by Dietmar Offenhuber and Katja Schechtner; Springer.

2012 **The Network Takeover**
Nature · visual contribution

2011 **Controllability of Complex Networks**
Nature · cover artwork

09 / PROJECT CONTRIBUTIONS AND BOOKS FEATURING THE WORK

Books & visual contributions

Atlas of Macroscopes: Interactive Data Visualizations

Visual/project contributions in the book by Katy Börner, Elizabeth G. Record and Todd N. Theriault. MIT Press, 2025. Project makers credited below.

43 **Charting Culture**
Maximilian Schich; **Mauro Martino**
Atlas of Macroscopes, pp. 32–33 · 2025

44 **Watson News Explorer**
Steven Ross; Timothy Stutts; Megan Monroe; **Mauro Martino**
Atlas of Macroscopes, pp. 84–85 · 2025

45 **Nature 150**
Alice Grishchenko; Alexander Gates; Qing Ke; Onur Varol; **Mauro Martino**; Albert-László Barabási
Atlas of Macroscopes, pp. 88–89 · 2025

Books featuring visual work and projects

2025 **Data Set Go! Guida introduttiva all'information design**
Francesco Paolo Incantalupo · Edizioni Efesto

2024 **L'opera d'arte nell'epoca dell'Intelligenza Artificiale**
Chiara Canali and Rebecca Pedrazzi · Jaca Book

2021 **Futuri possibili. Scenari d'arte e Intelligenza Artificiale**
Rebecca Pedrazzi · Jaca Book

2020 **Hidden Patterns: Visualizing Networks at BarabásiLab**
Hatje Cantz

2019 **Broken Nature: Design Takes on Human Survival**
Paola Antonelli · Rizzoli Electa

2018 **Data Design. The Data as a Creative Medium**
David Bihanic · Gallimard / Zanardi

2017 **The Art of Cartographics: Designing the Modern Map**
Goodman / SendPoints · preface by Jasmine Desclaux-Salachas

2017 **The Image-Interface: Graphical Supports for Visual Information**
Everardo Reyes-Garcia · Wiley

2017 **Network Medicine: Complex Systems in Human Disease and Therapeutics**
Harvard University Press

2016 **Data Visualisation: A Handbook for Data Driven Design**
Andy Kirk · SAGE

2016 **The Truthful Art: Data, Charts, and Maps for Communication**
Alberto Cairo · New Riders

2016 **Network Science**
Albert-László Barabási · Cambridge University Press
Credited for initial chapter design, visual elements and visualization.

2016; 2015 **The Best American Infographics**
Gareth Cook; introductions by Robert Krulwich (2016) and Maria Popova (2015) · Mariner Books

2014 **Mapping It Out**
Hans Ulrich Obrist; introduction by Tom McCarthy · Thames & Hudson

2009 **60: Innovators Shaping Our Creative Future**
Lucas Dietrich · Thames & Hudson

10 / INTERVIEWS, PROFILES AND PROJECT COVERAGE

Selected media

2025 **An artist's tribute to modern AI**
IBM Research · 27 October
Interview and feature on Atomic Reverberations.

2024 **Mauro Martino e l'IA: senso e sensibilità dell'astrazione algoritmica**
Francesco Maria Orsolini · Inside Art, 11 July

2024 **The Measure of Intensities: On Luc Tuymans**
Joshua Cohen · The Paris Review, 14 June
Discusses Martino's data visualization as the source for Tuymans's painting Polarisation.

2023 **E l'algoritmo firma la videoinstallazione**
Cristiana Campanini · La Repubblica, 29 November

2023 **Milano Fabbrica di Futuro at Malpensa**
RAI TGR Lombardia · September
Television coverage of the MEET / SEA installation.

2023 **Parlare tante lingue mi ha portato a essere più inclusivo e comprensivo**
Eugenio Furia · Corriere della Calabria, 24 December

2022 **MEET THE MEDIA GURU: Mauro Martino**
Mariam Ndiaye · Artuu, 25 September

2020 **Coronavirus data visualization and "flatten the curve"**
Fast Company; Fortune

2019 **AI Portraits**
MIT Technology Review; TechCrunch; CNN; The Verge; Vox; Wired; La Repubblica; Corriere della Sera; Fast Company

2019 **150 Years of Nature**
Nature; Fast Company; La Repubblica; Il Sole 24 Ore; Northeastern News

2018 **Artificial intelligence and visual creativity**
The New York Times, special AI section; Fast Company; RAI

2017 **Network Earth**
Popular Science; Corriere della Sera; Northeastern News

2015 **The Rise of Partisanship**
The Washington Post; Vox; Phys.org

2014 **Charting Culture**
Nature; NPR; Wired; The Atlantic; Slate; Smithsonian; Der Spiegel; The Verge

2012–2010 **Early network and urban visualization projects**
The Atlantic; MIT News; BBC News; The Guardian; FlowingData