



STATE OF THE MAP

Milan, Italy

28–30 July 2018

Content

Welcome	3
Scholarships	4
Getting around in Milan	4
Code of Conduct	5
Saturday	6
Sunday	10
Monday	14
Lightning talks	17
OpenStreetMap Foundation	20
Thanks	21
Sponsors	23
Maps	32
Legal notice	35

Hashtag: #sotm

The general emergency telephone number in Italy is **112**.

* Sessions in this room will not be recorded on video.

** This session will not be recorded on video.

Welcome to Milan and State of the Map 2018

This booklet provides you essential information about the conference, the location and the schedule. We are proud of the participation of the OpenStreetMap community and our rich program but there is even more! Please do get involved and take advantage of the off-schedule sessions, discussions and spaces.

Help desk You already know the help desk, located on the ground floor (Building 3, same as the whole conference). It is also your port of call if you need support or help. We are listening to every question, report and comment related to the event, the code of conduct (page 5) or any aspect of the organisation.

Programme You can find the diverse programme on page 6f. Full abstracts of all talks are available at <https://2018.stateofthemap.org/program>

More than just talks Room S.1.6 is available during the whole conference as free and open space offering chairs and tables to talk to each other, work on your projects or just relax. Rooms S.1.3 (Saturday and Monday only) and S.1.4 are available for self-organised sessions. Please come to the help desk near De Donato hall to announce your session.

Sponsors We would like to thank our sponsors for making this event possible and for their support to the OpenStreetMap Foundation.

Scholarships

The OpenStreetMap Foundation is delighted to be able to provide scholarships to a number of recipients from Europe, the Americas, Africa and Asia:

Alsino Skowronnek
Arnalie Faye Vicario
Austin Zhu
Céline Jacquin
Cidália Costa Fonte
Dennis Irorere
Geoffrey Katereggga
Kshitiz Khanal
Laura Mugeha

Montseng Moeti
Natália da Silveira Arruda
Rebecca Firth
Remígio Chilaule
Sebastian Meier
Tasauf A Baki Billah
Timofey Subbotin
Wulansari Khairunisa

The OpenStreetMap Foundation was not the only organisation granting scholarships. Les Libres Géographes (with the overall support of Organisation Internationale de la Francophonie) facilitates five and Wikimedia Deutschland three scholarships over their own scholarship programmes.

Getting around in Milan

Azienda Trasporti Milanesi (ATM) operates a public transport network in Milan. Single tickets cost € 1.50 and are available from newsstands, tobacconists (tabaccherie), bars and automatic ticket machines in metro stations. 24 h (€ 4.50) and 48 h (€ 8.25)

tickets, as well as a *carnet* of 10 single trips (€ 13.80) are also available. An evening ticket (€ 3.00) allows unlimited travel after 20:00.

Tickets should be stamped at the start of every journey and every time you change vehicles. To stamp your ticket insert it into the slot in the electronic ticket machine on board overground vehicles or at the ticket barriers in the metro. It is then valid for 90 minutes unlimited use (bus or tram), or the completion of your full metro journey. Tickets are not sold on board and you will not find a self-service ticket machine at bus and tram stop.

If your journey starts with the Metro, you can also use contactless payment. Fees are limited so that you do not pay more than the 24 hr rate on any day.

Code of Conduct

The OSM Foundation is dedicated to providing a harassment-free conference experience for everyone, regardless of gender, gender identity and expression, sexual orientation, disability, physical appearance, body size, race, age or religion. We do not tolerate harassment of conference participants in any form. Sexual language and imagery is not appropriate for any conference venue, including talks.

Conference participants violating these rules may be sanctioned or expelled from the conference without a refund at the discretion of the conference organizers.

Our anti-harassment policy can be found on our website.

09:30	De Donato	
	Welcome	
10:00	Keynote OpenStreetMap—now and into the future <i>Kate Chapman, Heather Leson</i>	
	De Donato	S.0.2
10:30	Can we validate every change on OpenStreetMap? <i>Lukas Martinelli</i>	Making maps without databases <i>Thomas Skowron</i>
11:00	 break	
	De Donato	S.0.3
11:30	Interpreting imagery for OpenStreetMap <i>Chad Blevins</i>	Qt to create maps <i>Paolo Angelelli</i>
	OpenMapTiles—vector tiles from OpenStreetMap <i>Petr Pridal, Jiri Komarek</i>	
	S.1.5*	

	De Donato	S.0.3	S.1.5*
12:00	Advertising mapping— using OpenStreetMap for the protection of landscape <i>Paul Desgranges</i>	Large scale deep learning for map making <i>Alina Negreanu, Bogdan Gliga</i>	Workshop (60 min) Field mapping tools and technologies <i>Paul Uithol</i>
12:30	An excursion in to the world of OSM tagging presets <i>Simon Poole</i>	How deep learning could help to improve OSM data quality? <i>Oliver Courtin</i>	
13:00		 lunch	
14:00		 photo	

Saturday

	De Donato	S.0.3	S.1.5*
14:10	Addressing addresses <i>Sarah Hoffmann</i>	The Belgian perspective to building OpenStreetMap community <i>Ben Abelshausen, Joost Schoupe</i>	Lightning talks 1
14:40	2, 4, 6, 8, Here's how we interpolate <i>Julian Simioni</i>	A new approach to garner prolific contribution in OpenStreetMap <i>Kshitiz Khanal</i>	Workshop (60 min) The LWG presents: GDPR implementation for OSM <i>Kathleen Lu</i>
15:10	OsmAnd making live maps update <i>Victor Shcherb</i>	Building up the Microsoft Open Maps Team <i>Osin Herriott</i>	
15:40	 break		

	De Donato	S.0.3	S.1.5*
16:10	Lies, damned lies, and OSM statistics <i>Frederik Ramm</i>	Verifying our edits <i>Bogdan Petrea, Armin Gheorghina</i>	Corporate cartography: How the sausage gets made <i>Paul Norman</i>
16:40	An innovative approach to support OSM data generation <i>Emanuela Mihut</i>	Mapping competition with focus on quality: lesson learned <i>Yantisa Akhadi</i>	Workshop (60 min) Open Gender Monologues <i>Heather Leson</i>
17:10	Pinpointing the power grid <i>Sajjad Anwar</i>	Improving OSMCha for the community <i>Wille Marcel Lima Malheiro</i>	
17:40	⚠️	Get involved in the OSM Foundation! (until 18:30)	

Saturday

Sunday

	De Donato	S.0.3	S.1.3	S.1.5*
09:30	Alternative perspectives through artistic interpretations <i>Sebastian Meier et al.</i>	What's up with the public transport <i>Ilya Zverev</i>	Coordinating improved communication between the academic and OSM communities <i>Peter Mooney et al.</i>	
10:00	Lightning talks 2	Network for transport open data <i>Céline Jacquin</i>	Surveying OSM contributors: Learning from the community <i>Zoe Gardner, Peter Mooney</i>	Thematic mapping with emojis <i>Erik Escoffier</i>
10:30	Lightning talks 3	Solving routing problems with OSM and VROOM <i>Julien Coupey</i>	Slum health mapping as catalyst for a collaborative agenda for research, practice, local ... <i>João Porto de Albuquerque et al.</i>	OpenStreetMap My Business <i>Stefan Keller</i>

De Donato		S.0.3	S.1.3	S.1.5*
11:00	 break			
11:30	OSM and the European agenda <i>Vlado Cetl</i>	The use of OSM in public transport in Helsinki, Finland <i>Markku Huotari</i>	Human-centered data science and OSM: contributor-centric OSM analysis infrastructure <i>Jennings Anderson</i>	Some location intelligence from OSM <i>Jaak Laineste</i>
12:00	Panel (60 min) Sustainability of OSM mapping projects <i>Erica Hagen</i>	Printing OSM maps <i>Hartmut Holzgraefe</i>	Intrinsic assessment of the temporal accuracy, up-to-dateness, lineage and thematic accuracy of OpenStreetMap <i>Francesco Frassinelli et al.</i>	Workshop (60 min) Humans and machines mapping together <i>Zhuangfang NaNa Yi</i>
12:30		Osmose-QA and validation with JOSM <i>Frédéric Rodrigo</i>	Comprehensive OSM history data analyses—for and with the OSM community <i>Michael Auer et al.</i>	

Sunday

Sunday

Sunday			
De Donato	S.0.3	S.1.3	S.1.5*
 lunch			
13:00			
14:00	Panel (60 min) The road towards diversity in OSM still needs to be mapped <i>Céline Jacquin</i>	Navigating with OSM in Bangladesh <i>Tasauf A Baki Billah</i>	An innovative approach to support OSM data generation <i>Emanuela Mihut et al.</i>
14:30	Flying ferries and moving pavements? <i>Guillaume Rischard</i>	Investigating the mapping process after disasters: OsmEventAnalyst and its application for the 2016 Italian earthquakes <i>L. Delucchi, M. Minghini</i>	Workshop (60 min) Exploring OSM's history using the Ohsome data analytics platform <i>Martin Raifer et al.</i>
15:00	Lightning talks 4	CityZen <i>Redon Skikuli</i>	IT backend of the OSM community <i>Timofey</i>

	De Donato	S.0.3	S.1.3	S.1.5*
15:30			 break	
16:00	A tale of two (mapping) cities <i>A. Skowronnek, M. Feretti</i>	Lightning talks 5	Potential and limitation of using OSM data for the creation/validation of land use/cover maps <i>Cidália C. Fonte</i>	A community-driven non-profit mapping agency <i>Ben Abelshausen</i>
16:30	OSM Community Grants: sharing experiences <i>Rebecca Firth</i>	Lightning talks 6	The challenges and issues associated with a natural resource mapping framework based upon OSM <i>Chris Emberson et al.</i>	Workshop (60 min) Navigation mapping workshop <i>Kajari Ghosh</i>
17:00	Working with the community** <i>Ryan Peterson</i>	Lightning talks 7	Using OpenStreetMap to model bicycle traffic in an agent-based transport simulation <i>D. Ziemke, S. Metzler</i>	

Sunday

Monday

	De Donato	S.0.3	S.1.5*
09:30	Completing the map with street-level imagery <i>Christopher Beddow</i>	Road Completion in Belgium—mapping and verifying all the roads <i>Ben Abelshausen</i>	Lightning talks 8
10:00	Pic4Review: fun OSM editing based on street pictures <i>Adrien Pavie</i>	Going to production with OpenStreetMap at Microsoft <i>Jubal Harpster</i>	Workshop (60 min) Building your OSM web app in minutes with vector tiles <i>Lukas Martinelli, Jinal Folia</i>
10:30	Form and map based mobile tool for survey and validation <i>Kuo-Yu slayer Chuang</i>	Switch2OSM—a real enterprise context case study <i>Andrea Capata</i>	
11:00	 break		

	De Donato	S.0.3	S.1.5*
11:30	The new Wheelmap: Joining forces in accessibility mapping—feat.: "I Wheel Share" <i>Svenja Heinecke</i>	Making bot edits safe and acceptable <i>Yuri Astrakhan</i>	Panel (60 min) OpenStreetMap and the future of transport <i>Michele Ferretti</i>
12:00	Modding the OSM data model <i>Jochen Topf</i>	Robot Tracers— extraction and classification at scale using & CNTK <i>Nikola Trifunovic</i>	
12:30	Energy efficient routing with OSM <i>Arndt Brenschede</i>	Reaching out to vulnerable communities in Turkey <i>Gülşah Eker</i>	Attracting students with Google Summer of Code <i>Peter Barth</i>
13:00	 lunch		

Monday

Monday

	De Donato	S.0.3	S.1.5*
14:00	Openrouteservice— route the world dynam- ically <i>Nils Nolde</i>	OSM enabled urban mobility services for the city of Yangon <i>Robert Castelli</i>	Workshop (60 min) Areas, routing, and diffs: Can we have something better than relations? <i>Roland Olbricht</i>
14:30	Routing on rails with OpenStreetMap <i>Michael Reichert</i>	Community mapping for refugees in Uganda <i>Geoffrey Kateregga</i>	
15:00	OSM at Facebook <i>Drishtie Patel</i>	Dronebirds are go! <i>Taichi Furuhashi</i>	Lightning talks 9
15:30	 break		
16:00	Indonesia road mapping: Challenges and opportunities <i>Wulansari Khairunisa</i>	3D beyond buildings <i>Tobias Knerr</i>	Lightning talks 10
16:30	Closing and OSM Awards ceremony		

Lightning Talks

Saturday 14:10 in S.1.5

Nicole Martinelli: *OpenStreetMaps for emergency prep: The view from San Francisco*

Daniel Mietchen: *Wikimedia in disaster management and humanitarian aid: an overview*

Janet Chapman: *Crowd2Map Tanzania—helping protect girls from FGM and empower rural communities*

Laura Mugeha: *Role of mapping in achieving the Sustainable Development Goals (SDGs)*

Sudnay 10:00 in De Donato

Instvan Vincze: *Making a JOSM mapper's life simpler and easier*

ikushan: *A new lightning fast .osm parser*

Bryan Housel: *The state of the iD editor*

Simon Poole: *State of Vespucci*

Sunday 10:30 in De Donato

Remígio van Eys Chilaule: *State of OSM in Mozambique: community presentation and on-going projects*

Alexandre Duclaux: *Mapping Freetown's distribution water network using OSM*

Javier Carranza Tresoldi: *Third party data for the SDGs: What can openstreetmap bring to the table?*

Sunday 15:00 in De Donato

Daniel Mietchen: *Maps based on Wikidata queries*

Michael Spreng: *FOSSGIS routing server*

Eugene Alvin Villar: *OpenStreetMap and Wikimedia*

Stefan Eberlein: *Providing OSM realtime extracts*

Sunday 16:00 in S.O.2

Adriana Lazar: *The Telenav Metrics Dashboard for OpenStreetMap*

Jinal Foflia: *Where is the community?*

Ilya Zverv: *Every day I'm mapping*

Thilo: *Namespaces general description*

Sunday 16:30 in S.O.2

Akhi Jetra: *Brightest star among the crowd*

Massimiliano Bernabé: *OpenStreetMap for the dyslexic*

Sandra Tabinas: *Mental Health A-WHERE-ness PH: Mapping mental health resources in the Philippines*

Michael Bernhamou: *Improving Public Policy with Geo-Statistics*

Sunday 17:00 in S.O.2

Kristiina Kerge, Kadri Maripuu: *MapIt—Global trash hunt*

Balémnta Aimée Sama: *The face of OSM in Togo: data analysis and achievements*

Gregory Marler: *State of the UK: 14 years of vision*

Arnalie Faye Vicario: *Mapping A Paradise: Batanes, the Home of the Winds*

The stage is yours ...

You are missing a talk? We have three slots (4 lightning talks each) left. Meet us at the help desk to sign up.

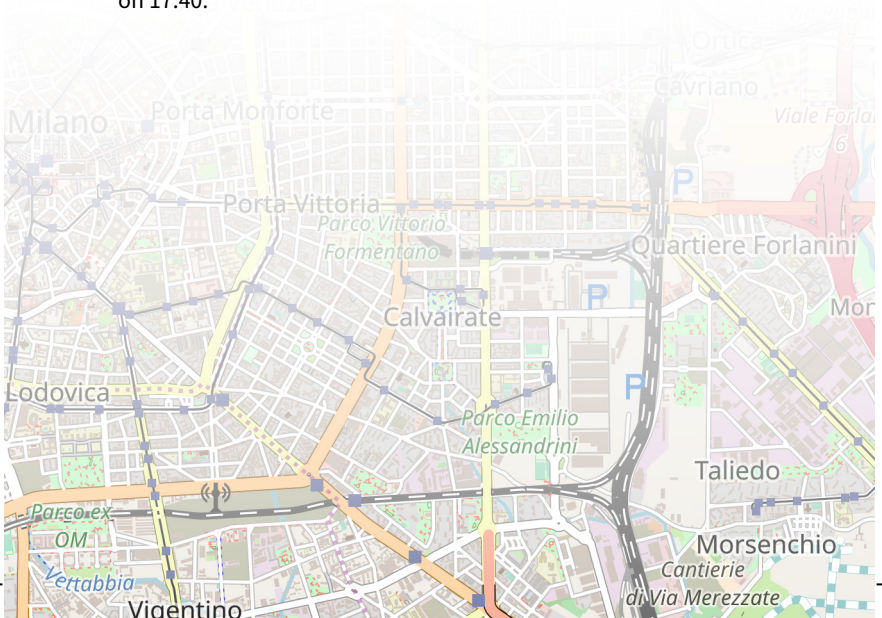
New lightning talks and changes to the programme will be announced next to the welcome desk. Descriptions of the new lightning talks will be published on the OpenStreetMap wiki at <https://2018.stateofthemap.org/program>

OpenStreetMap Foundation

The OpenStreetMap Foundation is an international non-profit organization supporting, but not controlling, OpenStreetMap. We are dedicated to encouraging the growth, development and distribution of free geospatial data and to providing geospatial data for anyone to use and share.

We need you as member. Members are vital to the OpenStreetMap Foundation—to voice ideas and shape the direction of the Foundation, and support efforts of working groups. We welcome all who support our goals to join us!

Find out more and join at osmfoundation.org or join the session *Get involved in the OpenStreetMap Foundation* on Saturday on 17:40.



Thanks

Each year when we write this section we are reminded why OpenStreetMap is so great—it's the dedication and passion of individuals who, when acting together, can achieve great things. This year is no different. In fact we've been helped by a record number of people, many of whom are returning in roles they supported in the previous year or two. The generosity of the following people have kept us on track and each contribution, however small, moved us closer to our goal. Thank you.

State of the Map would not be possible without the support of the OpenStreetMap Foundation working groups. Over the years we have worked with almost every working group, the Board, Advisory Board, and of course our hosts of this year (Wikimedia Italia) are one of the OSMF Local Chapters. We encourage everyone to ask how they can help the groups—even a spare 10 minutes here and there can make the difference.

SotM Working Group

Benoît Fournier
Christine Karch
Gregory Marler
Michael Reichert
Mikel Maron
Rob Nickerson

Francesco Frassinelli
Giovanna Ranci Ortigosa
Marco Minghini
Maria Antonia Brovelli
Marta Erica Arosio

Local team

Alessandro Palmas
Francesca Ussani

Academic selection committee

Amin Mobasheri
Daniele Oxoli
Cristian Consonni
Darian Frajberg

Frank Ostermann
Gloria Bordogna
Joost Schouppe
Marco Minghini (lead)
Maria Antonia Brovelli
Monia Elisa Molinari
Peter Mooney
Piero Fraternali
Rocio Nahime Torres
Sofiane Abbar
Stefan Keller
Victoria Rautenbach
Vyron Antoniou

**Programme selection
committee**

Alessandro Palmas
Andrew Wiseman
Benoît Fournier
Christine Karch
Gregory Marler
Mikel Maron
Rob Nickerson
Selene Yang
Sidorela Uku
Stefano Sabatini

Scholarship selection

Alessandro Palmas
Christine Karch
Gregory Marler
Heather Leson
Ilya Zverev

Jóhannes Birgir Jensson
Maurizio Napolitano
Mikel Maron
Rebecca Firth
Rob Nickerson
Selene Yang
Sidorela Uku
Stefano Sabatini

Volunteers at the event

Anna Rosati
Aurelio Cilia
Candan Eylül Kilsedar
Cristian Consonni
Daniele Oxoli
Durgesh Nandini
Fabio Cattaneo
Federica Gaspari
Gautam Kishore Shahi
Lorenzo Stucchi
Marco Brancolini
Miloš Stojiljković
Simone De Santis

Other

Angelica Braccia (logo design)
Dorothea Kazazi (scholarship and
admin support)
Frederik Ramm (treasurer)
Ilya Zverev (OSM Awards lead)
Michael Montani (social media)
Tom Hughes (ticket site)



The Microsoft center of excellence
for OpenStreetMap development,
editorial and imagery analysis



Microsoft | Development Center Serbia



www.mdcs.rs

mdcsinfo@microsoft.com

www.facebook.com/Microsoft.Development.Center.Serbia

AI-Assisted Road Tracing validated by editors to
increase road coverage in OpenStreetMap



facebook

Did you know?

Facebook uses OpenStreetMap in a variety of products including places, pages and checkins.

Build experiences for exploring the world

→ 5 min



 **immobiliare.it**

Map based
property search





Visit the Telenav booth to win a special prize from OpenStreetCam

Large Scale Deep Learning for Map Making

S.O.2, Saturday, 12:00

Verifying Our Edits

S.O.2, Saturday, 16:10

Making a JOSM Mapper's Life Simpler and Easier

De Donato, Sunday, 10:00

The Telenav Metrics Dashboard for OpenStreetMap

S.O.2, Sunday, 16:00

Follow us  @OpenStreetCam and @ImproveOSM

Proud to be a Silver Sponsor of State of the Map 2018



Map data at scale from street-level imagery

312 million street-level images, 26 billion image detections.

Make OpenStreetMap the most detailed map in the world.
Mapillary imagery and data are always open and free for OpenStreetMap editing.

Lanes:forward=2
Lanes:backward=2

GARMIN.

THE PREMIUM
MULTISPORT GPS WATCH

FENIX 5 PLUS SERIES



Copyright © 2018 Garmin Ltd. or its subsidiaries.



MAPS.ME

- #1 World OSM-Based Map
- #1 Mobile OSM Editor
- 100+ Million Users
- 2.4 Million edits by 220K editors

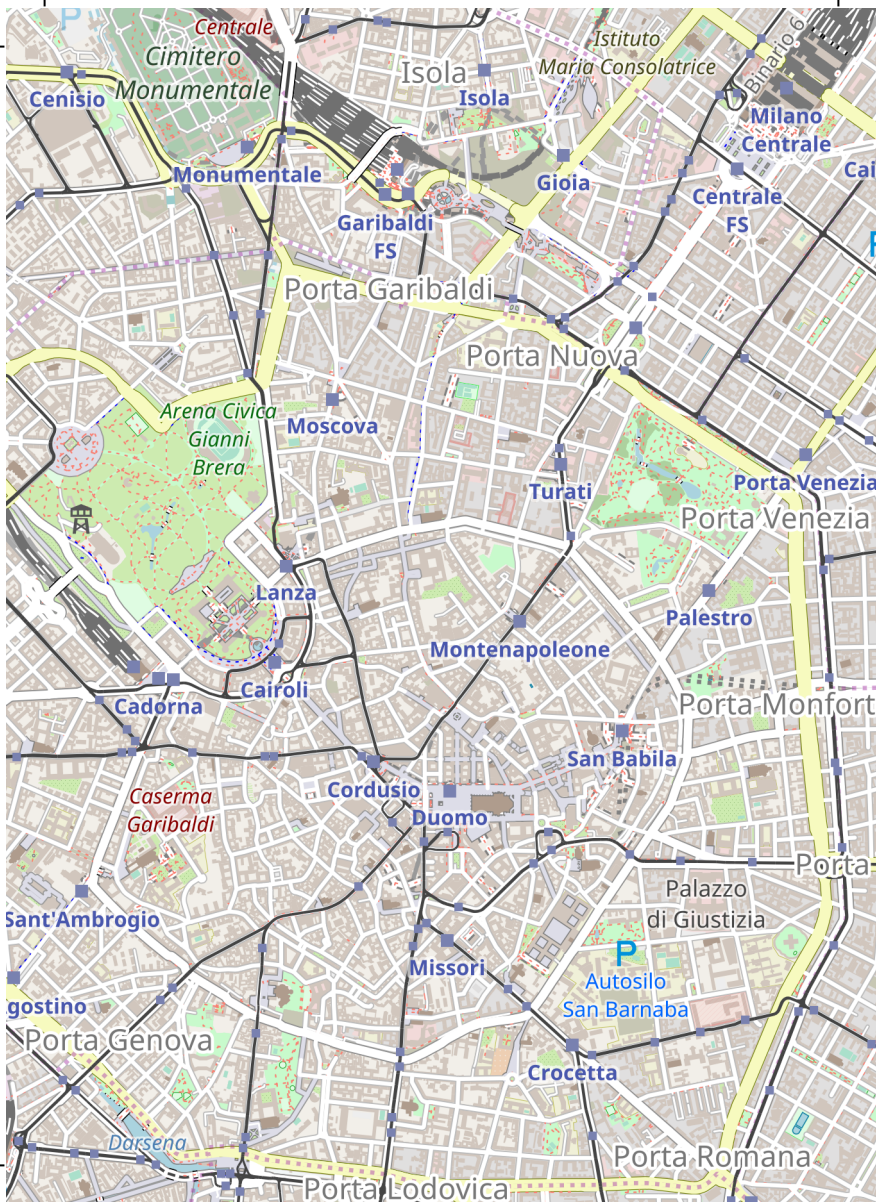
The app is rated ★★★★★ in App Store and Google Play by hundred thousands users.

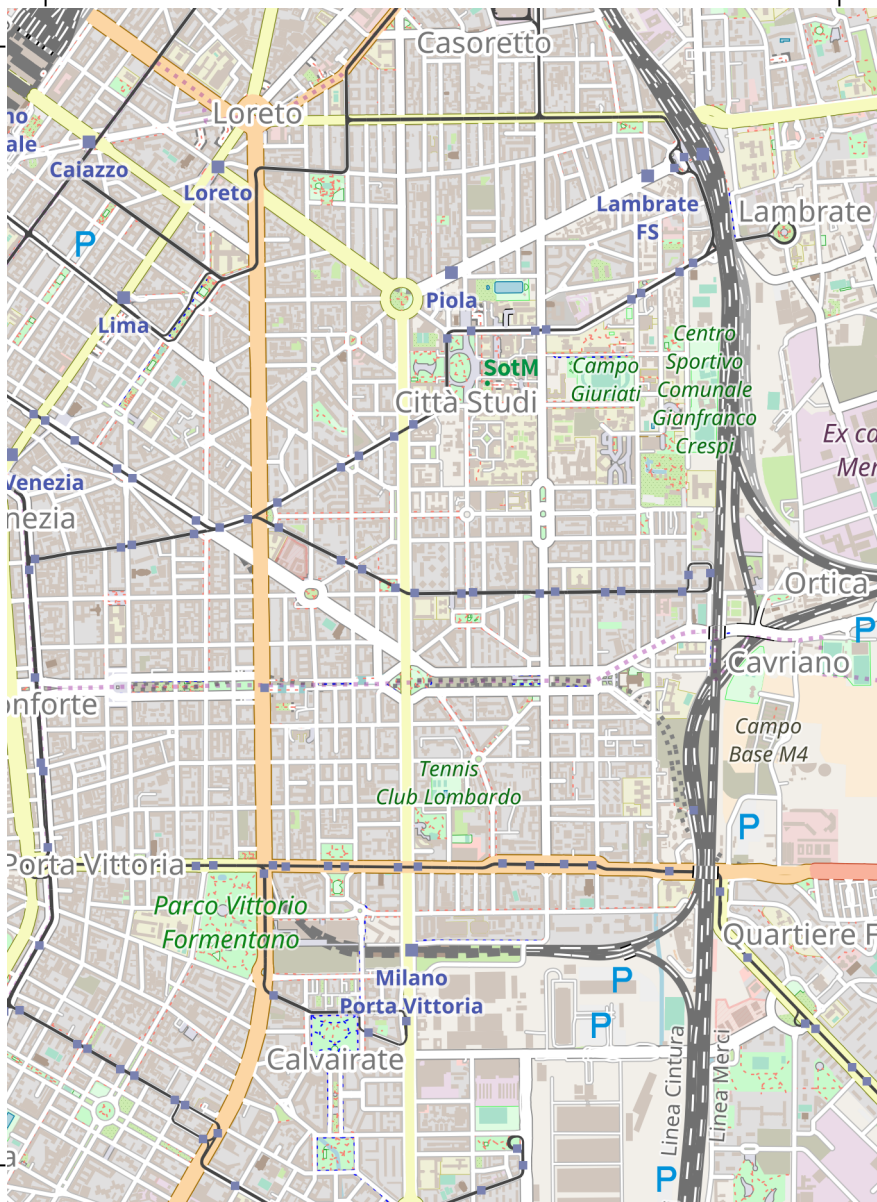


KAART

for your notes

for your notes







Unofficial metro map
of Milan

Mappa della rete
metropolitana di Milano

CC-BY-SA 4.0 Arbalet, Wikimedia Commons,

modified

Legal Notice

State of the Map 2018 is jointly organised by the OpenStreetMap Foundation, Politecnico di Milano and Wikimedia Italia and is under the patronage of Comune di Milano.



POLITECNICO
MILANO 1863



PATROCINIO
Comune di
Milano

Responsible for the content:
OpenStreetMap Foundation
132 Maney Hill Road
Sutton Coldfield
West Midlands B72 1JU
United Kingdom

This booklet has been prepared using Lua[®]TeX and other free and open source software.

Source code: <https://github.com/osmfoundation/sotm2018-booklet>

Content: OSMF State of the Map Working Group

Typesetting and layout: Michael Reichert

Map style and icons in the schedules: OpenStreetMap Carto developers

Map rendering: Geofabrik GmbH

Map data: © OpenStreetMap contributors, <https://osm.org/copyright>

Metro map: user Arbalete at Wikimedia Commons, CC-BY-SA 4.0



This booklet may be re-used under the Creative Commons Attribution Share-Alike 3.0 license. This does not apply to the metro map and advertisements and logos.

