

BOIS DU
CHAT NOIR

City interaction lab projects

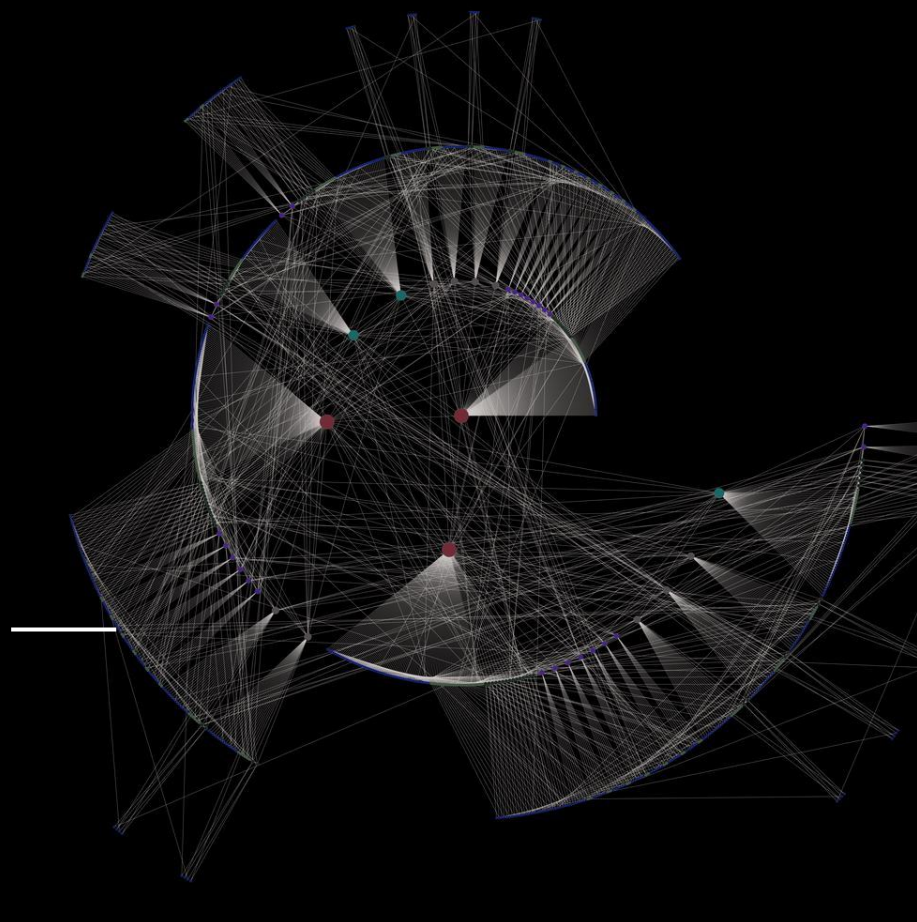
Mapping and citizen science projects

L. Bauer-Tupikina, V. Baumann, City Interaction lab, Paris, France

<https://sites.google.com/view/liubovkmatematike/>

@liyubov

November.2020



Bikes analysis

Bike mobility project with City lab Berlin data, CEU (Federico Battiston and Luis Natera) - we are planning to work on the project during [Complexity22](#)

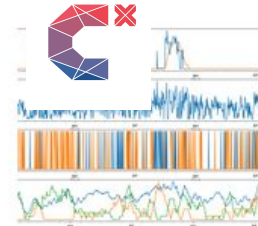


Paths in the city

Together with colleagues we analyze shortest paths in the city. Github repository is available at <https://github.com/liubovkmatematike>

Heterogeneous SIR model

We are finishing the project on heterogeneous SIR model, which we started in 2019 with my student at CRI and P.Holme. More on [github](#) soon.



Patients data analysis

Project together with O.Mirat, B.Greschake (CRI, Openhumans) and CorrelAid Paris

Analyzing open data

We are working on analysis of open data of health from UK with the colleagues, more news and updates soon.



Developing online courses

During Covid19 many schools and universities are closed. Together with [LeWigo](#) we support this and make research open online courses



Smart cities

Urban science, mobility of people, sensing citizens. Check and subscribe for [Move in Savoy](#) App



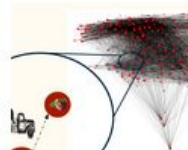
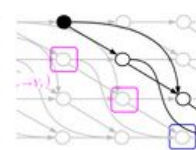
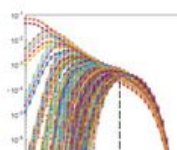
Mobility of researchers

Due to Coronavirus travel bans stopped many travels of scientists, we continue to work on formulating the [recolact](#)



Network percolation

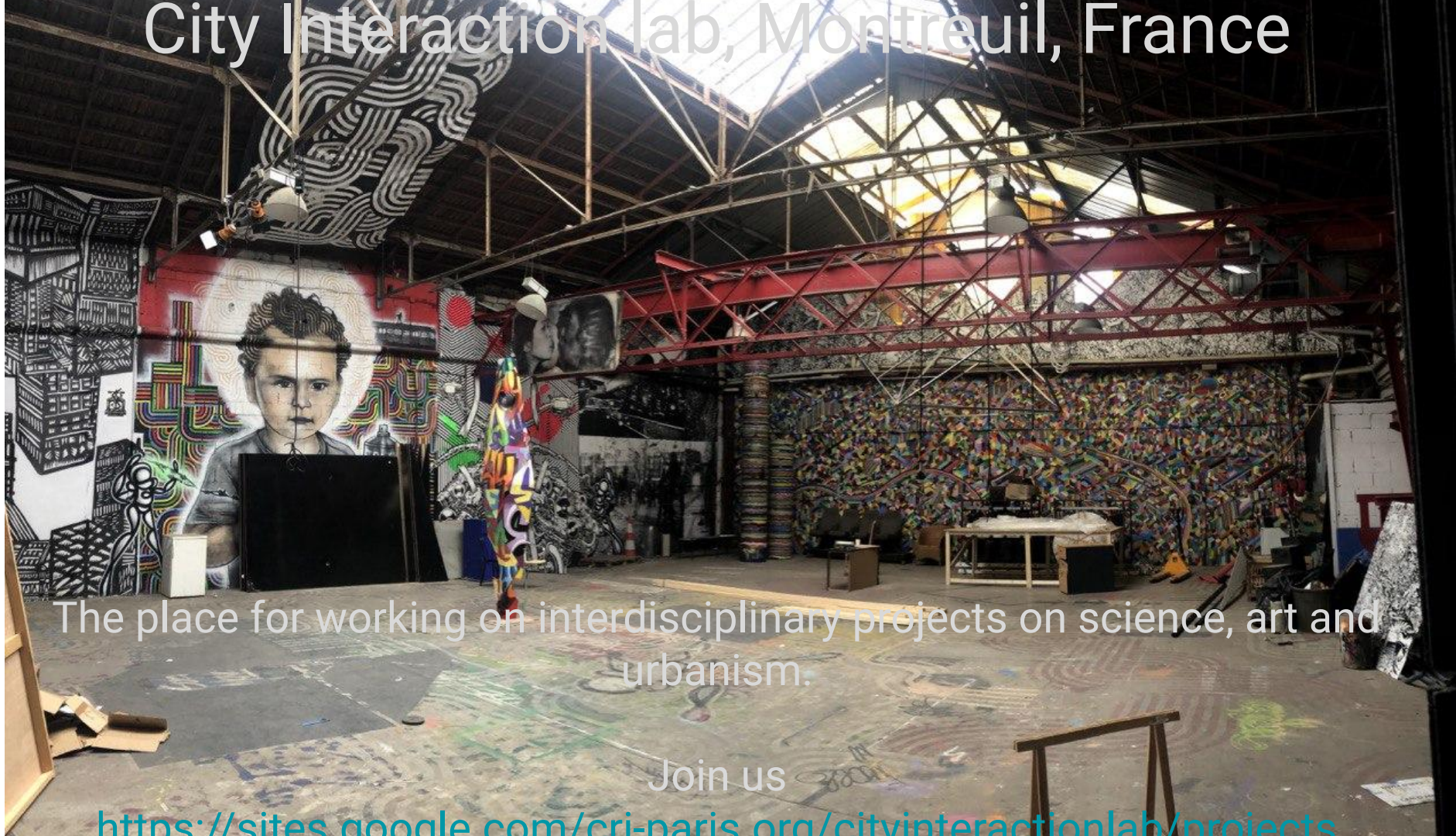
Project continuation of percolation project together with Ecole Polytechnique: generalisation to porous networks. Latest [article](#) in Sci.Rep.



About me

<https://sites.google.com/view/liubovkmatematike/>

City Interaction lab, Montreuil, France

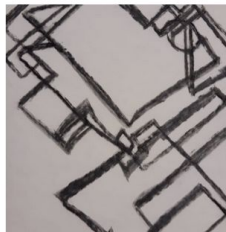


The place for working on interdisciplinary projects on science, art and urbanism.

Join us

<https://sites.google.com/cri-paris.org/cityinteractionlab/projects>

City Interaction lab projects



Project 1

We are currently working together with our partners on analysis of citizen science data from around the globe. If you are happy, join us, fork repository

<https://github.com/cityinteractionlab/>

And explore the open data from iNaturalist and citizen science platforms like SciStarter Project is organised thanks to Correlaid Germany and is lead by CorrelAid France (L.Bauer) together with UCL



Project 2

Project on Researchers mobility with Openhumans and CRI:

Have a look at related publications

<https://euraxess.ec.europa.eu/worldwide/australia-nz/survey-covid-19-will-have-huge-impact-researcher-mobility-and>

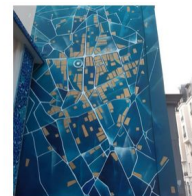
The webpage of participative project

<https://www.openhumans.org/activity/mobility-data-of-researchers/>



Project 3: Vera in the city

How to design City offline sensors? So that privacy is preserved and that people are able to share some properties of the city are shared? The project is called "Vera in the city". The draft of the project is available on github <https://github.com/cityinteractionlab/verainthecity> and <https://github.com/Liyubov/verainthecity>



Project 4: Educational courses

We are open to suggest educational and art courses around the topic of the city. Example of the course on openstreetmaps (still in progress): https://github.com/cityinteractionlab/openstreetmaps_osmnx_works_hop
We are happy to announce new projects coming with Romania First Tech Challenge



Augmented city inside forest

Using fast-style-transfer neural networks techniques we generate and transfer images from cities, using images from forest and other green and blue areas. The project was largely inspired by [BeForest](#) project.

The project is one of the projects of City Interaction lab in Paris

<https://medium.com/@liubovbauer/style-transfer-for-augmented-city-21b1e36cc20b>

We also are working on the github repository (to be opened very soon).

City Interaction lab projects

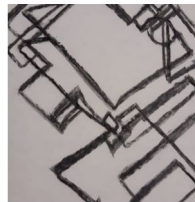
We are working on:

- citizen science (together with [CorrelAid](#), Germany, France and UCL, UK)
- educational projects: webinars and hackathons on data analysis
- science-art projects on city perception, big data in cities
- network analysis of bike systems around the globe
- shared mobility data (with Openhumans.org)

To learn more about them visit

<https://github.com/cityinteractionlab>

<https://sites.google.com/cri-paris.org/cityinteractionlab/>



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The webpage of participative project

<https://www.openhumans.org/activity/mobility-data-of-researchers/>

City Interaction lab project: bike networks

Analysis of bikes networks in Berlin:
Spatial patterns, communities of origin-destination matrices
(together with F.Battiston, L.Natera CEU, Austria,
Hungary and Technologiestiftung Berlin, Germany)

To learn more about them visit

<https://github.com/cityinteractionlab>

<https://github.com/Liyubov/bike-sharing>

<https://sites.google.com/cri-paris.org/cityinteractionlab/>

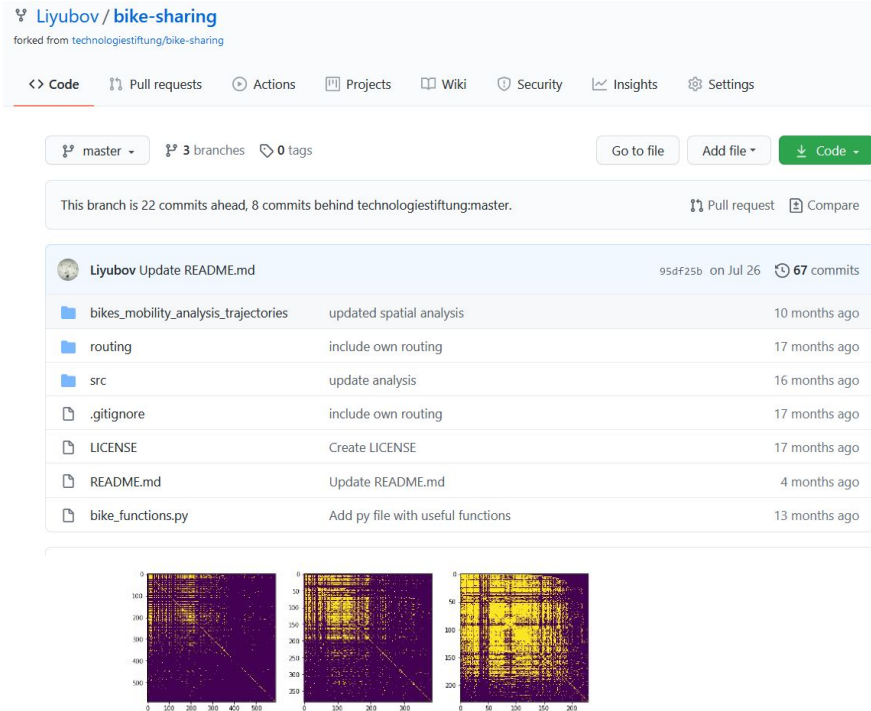


Figure 3: **Origin-destination matrix.** Analysis of origin-destination matrices

Projects around Citizen Science and openstreetmaps: Why citizen science?

Citizen science project from data from iNaturalist community:
How geolocalized (mappers) community evolves in time and spatially?
(together with [CorrelAid](#) data volunteers, Germany, CRI, Paris, France and UCL, UK)

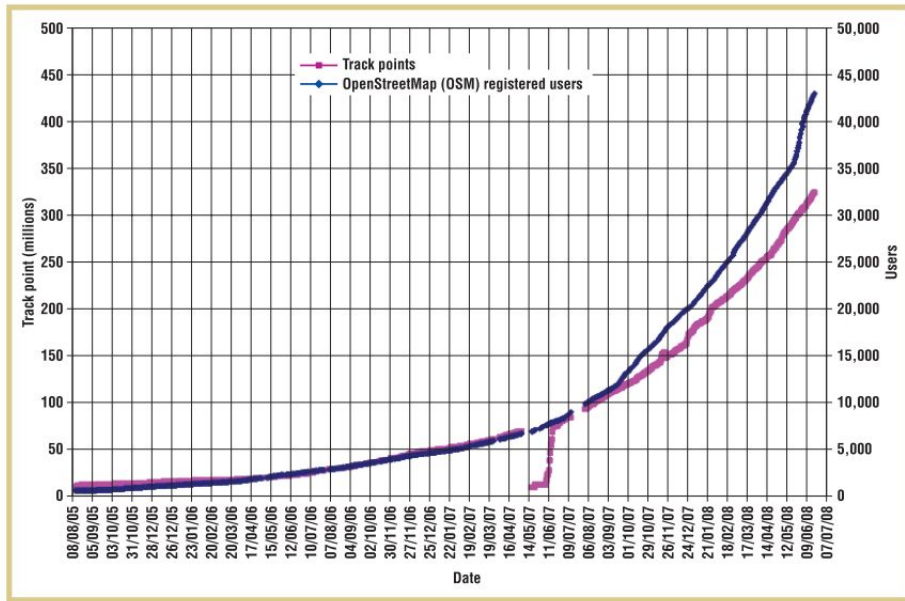
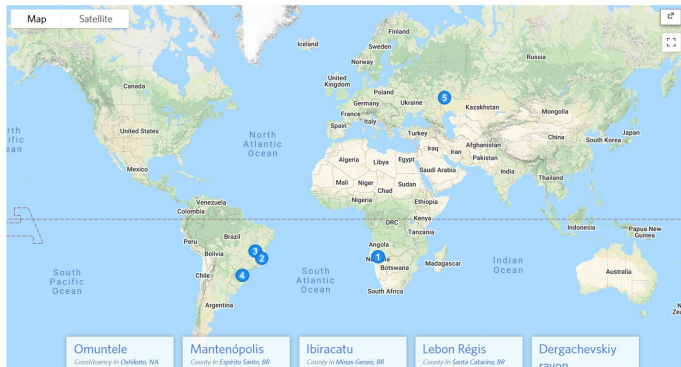
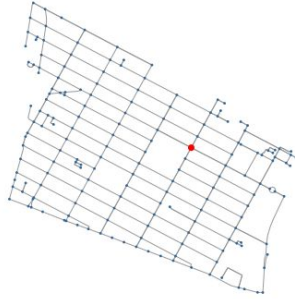
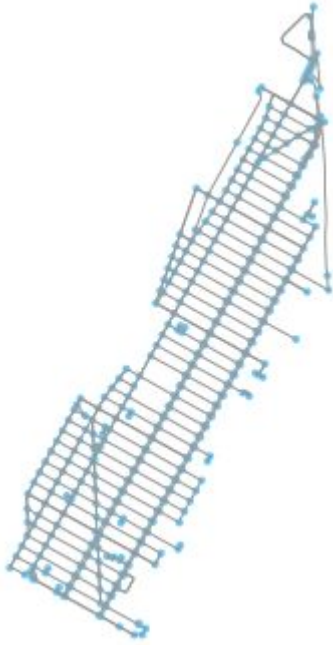


Figure 1. Graph of user and contributions growth to OSM on a monthly basis. The graph shows the accelerating growth in number of users and the rapid increase in data entry measured in track points (source: <http://wiki.openstreetmap.org>).

M.Haklay et al. "OpenStreet map: User-generated street maps" (2008)

Educational project on openstreetmaps analysis



Openstreetmaps analysis



Links to github

https://github.com/cityinteractionlab/openstreetmaps_osmnx_workshop

<https://github.com/gboeing/osmnx-examples>

https://github.com/cityinteractionlab/openstreetmaps_osmnx_workshop

Google colab

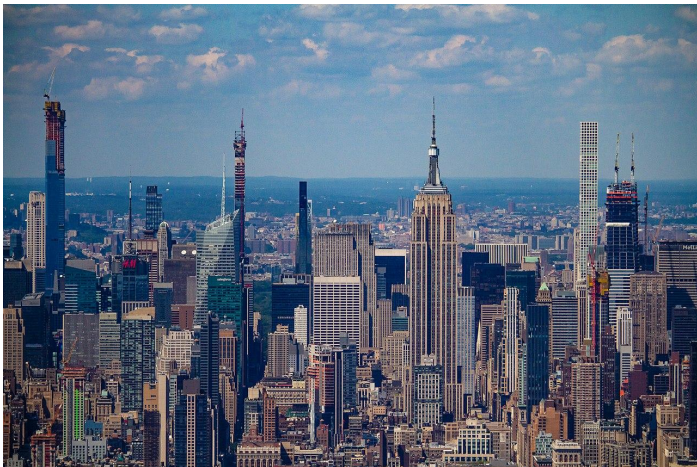
https://colab.research.google.com/drive/18aLg-YgrxMPUpR4iaqZ5YnUnryi0_b30#scrollTo=KwoM_vordZ

City perception project

City perception and science-art projects on how can we change it?

Perception of the city can be “transformed” using pictures of landscapes and cities.

Methodology: fast-style-reconstruction CNNs for combination of style and content.



To learn more about them visit

<https://medium.com/@liubovbauer/style-transfer-for-augmented-city-21b1e36cc40b>

<https://github.com/cityinteractionlab>

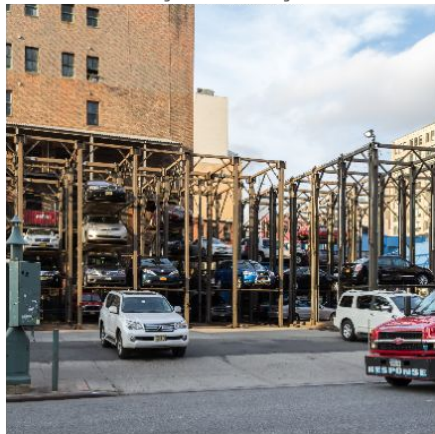
<https://sites.google.com/cr-paris.org/cityinteractionlab/>

City perception projects

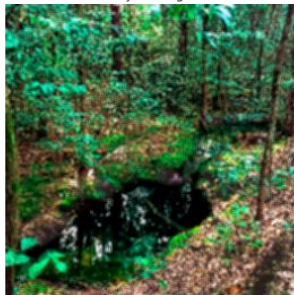
We are working on:

science-art projects on city perception, big data in cities (collaborative project with CRI)

Original content image



Style image



Stylized image



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<https://sites.google.com/cri-paris.org/cityinteractionlab/>

PARIS, BERLIN, ONLINE
**NEO URBAN NETWORKS
WORKSHOP
2020**

NEO URBAN NETWORK WORKSHOP

JOIN
SCIENCE URBAN COMMUNITIES
OF NEW CITIES



**NOVEMBER
27, 2020**

VIRTUAL PAVILION

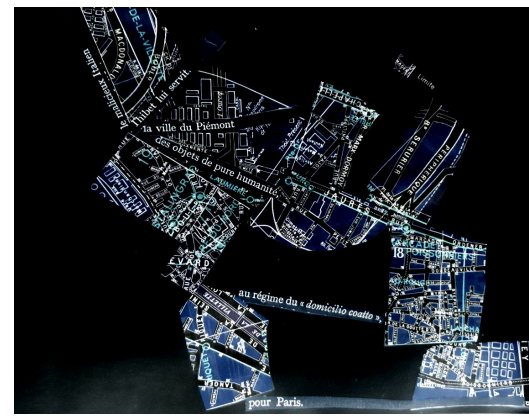
REGISTER FOR ZOOM LINK ATTENDANCE

[HTTPS://FORMS.GLE/DUV6SS2SN3TDIDAN7](https://forms.gle/DUV6SS2SN3TDIDAN7)

City Interaction lab events

27th November online

<https://sites.google.com/cri-paris.org/cityinteractionlab/events/neo-urban-networks-workshop>



Thank you!

Contact

liubov.tupikina@cri-paris.org

<https://sites.google.com/cri-paris.org/cityinteractionlab/events/neo-urban-networks-workshop>
