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15 March 2022

Certificate of contribution and co-authorship

I undersigned, Jean-Luc BERTRAND-KRAJEWSKI, professor at Laboratory DEEP, INSA Lyon, France certify that Dr. Santiago SANDOVAL has been actively involved as co-author of the URBIS software devoted to long term simulation of urban stormwater source control measures at parcel and block scales. URBIS is freely available at <https://deep.insa-lyon.fr/fr/content/urbis>.

More specifically, Dr. Santiago SANDOVAL, during his postdoctoral work under my supervision at INSA Lyon from 01 January of 2018 to 01 February of 2021, participated i) in the definition of the software functionalities, and ii) in the choice of equations and models. He wrote the Python code of the first version of Urbis. Since he left INSA Lyon after his postdoctoral work, Dr. Santiago SANDOVAL continued his contributions to URBIS by i) co-supervising Master students from INSA Lyon and Pontificia Universidad Javeriana, Bogota, Colombia who further extended the code, and ii) testing and validating the successive versions of URBIS.



Jean-Luc BERTRAND-KRAJEWSKI