

## **High spatial resolution CO<sub>2</sub> measurement using low-cost commercial sensors in Seoul megacity**

5 JaeYoung Park<sup>1</sup>, Jinho Ahn<sup>1\*</sup>, Jeongeun Kim<sup>1</sup>, Nasrin Salehnia<sup>1</sup>

<sup>1</sup>School of Earth and Environment Sciences, Seoul National University, Seoul, 08826, Republic of Korea

\*Correspondence to: Jinho Ahn (jinhoahn@snu.ac.kr)

### **1 Videos**

10 We interpolated the (corrected) Bongcheon Intersection measurement data from HT-2000 meters 2-dimensionally using *scatteredinterpolant* function in Matlab, which uses Delaunay triangulation. This was performed for each timestep, then plotted on the map of the region. The resulting .png files were then made into .mp4 movies using FFMPEG, resulting in supplement videos S1-S4.

**Video S1.** CO<sub>2</sub> concentration over time at Bongcheon Intersection during the 2022 session, <https://doi.org/10.5446/70548>

15 **Video S2.** Rate of CO<sub>2</sub> concentration change at Bongcheon Intersection during the 2022 session, <https://doi.org/10.5446/70549>

**Video S3.** CO<sub>2</sub> concentration over time at Bongcheon Intersection during the 2023 session, <https://doi.org/10.5446/70550>

**Video S4.** Rate of CO<sub>2</sub> concentration change at Bongcheon Intersection during the 2023 session, <https://doi.org/10.5446/70551>

2. Figure



Figure S1. Location of Bongcheon Intersection (red square) and Guryong Tunnel (red triangle). Map data © Airbus 2025.