

Supplementary to « Two years of total column measurements of CO₂, CH₄ and CO in Paris, France »

Josselin Doc¹, François-Marie Bréon¹, Morgan Lopez¹, Yao Té², Pascal Jeseck², Jinghui Lian^{1,3}, Guillaume Nief¹, Antoine Parent¹, Hippolyte Leuridan¹, Michel Ramonet¹

1. LSCE, Laboratoire des Sciences du Climat et de l'Environnement (UMR 8212 IPSL, CEA-CNRS-UVSQ, Université Paris-Saclay), Gif-sur-Yvette, France
2. MONARIS (UMR 8233, Sorbonne Université-CNRS), Paris, France
3. Origins.earth, SUEZ Group, Tour CB21, 16 Place de l'Iris, 92040 Paris La Défense CEDEX, France

Correspondence to: michel.ramonet@lsce.ipsl.fr

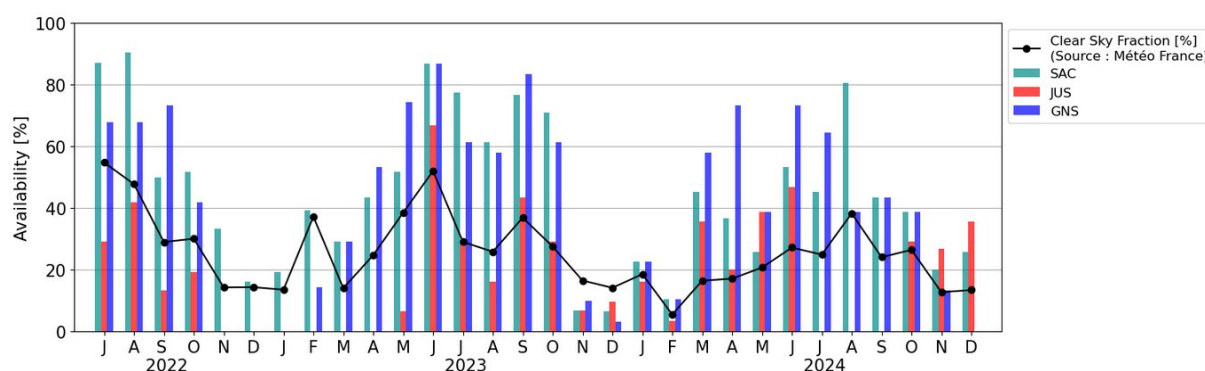


Figure S1. Monthly availability of column measurements in SAC, GNS and JUS. All instruments included for SAC and GNS, high-resolution spectrometer only for JUS. The black line shows the monthly averages of the clear sky fraction in the Paris' region (Source : Météo France).

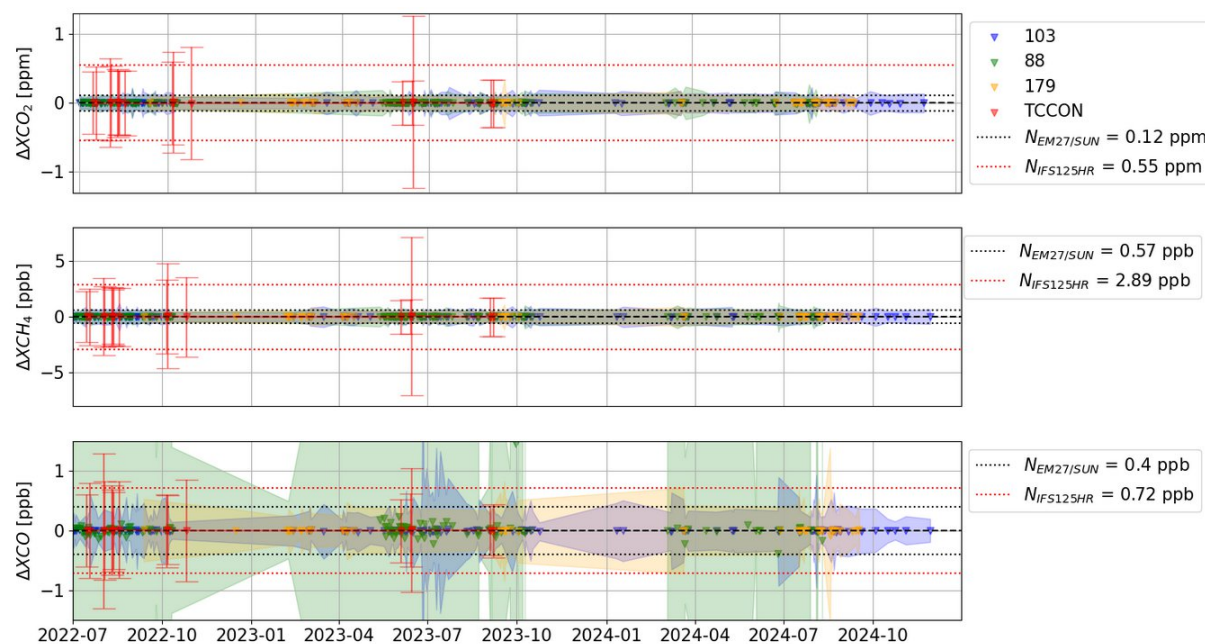


Figure S2. Estimate of the measurement noise for the three instruments of the Paris' network, from 2022-07-01 to 2024-12-31. The two black dotted lines show the noise computed from standard deviations for the EM27/SUN and the red dotted lines show the noise for the IFS 125 HR spectrometer.

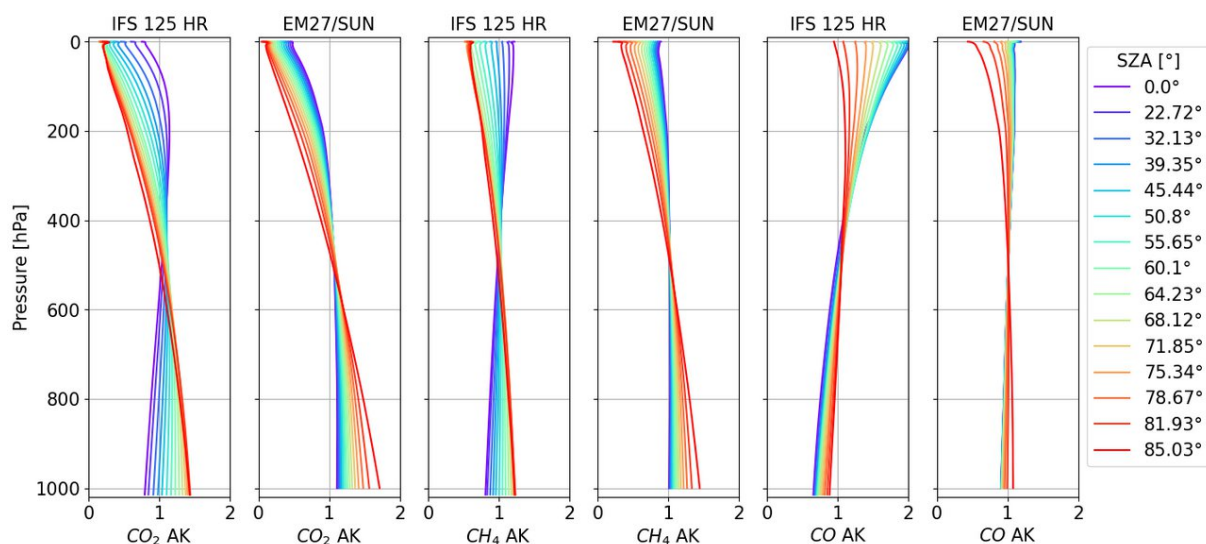


Figure S3. Averaging kernels of the IFS 125 HR and EM27/SUN solar spectrometers. The colorscale indicates the solar zenith angle (red close to 90° and purple towards 0°).

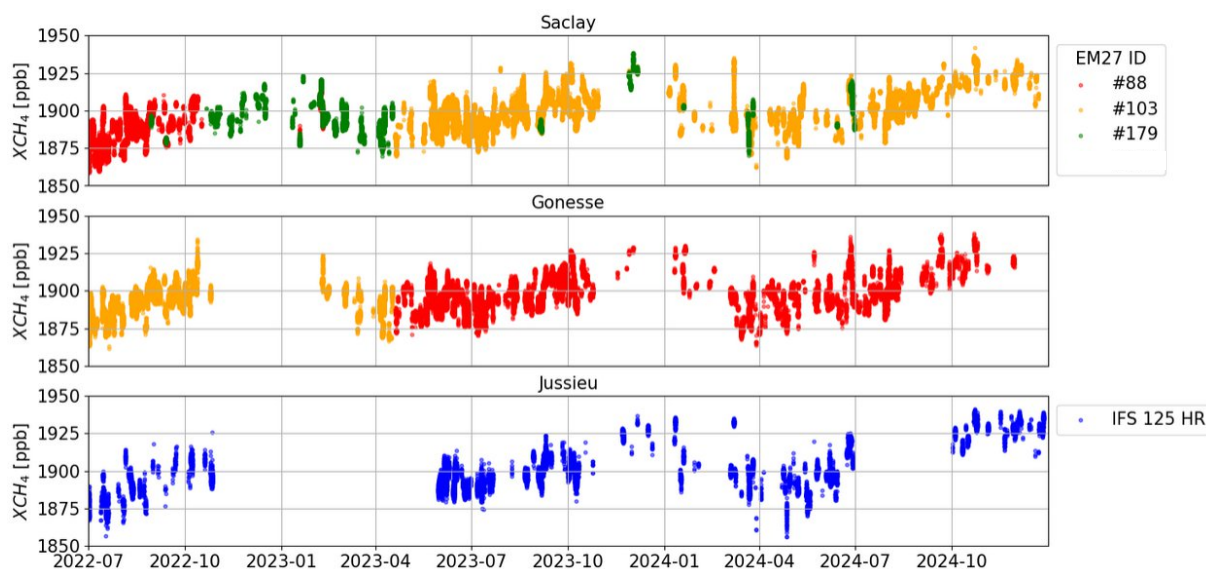


Figure S4. Times series of XCH_4 total column measurements in Saclay, Gonesse and Jussieu from 2022-07-01 to 2024-12-31.

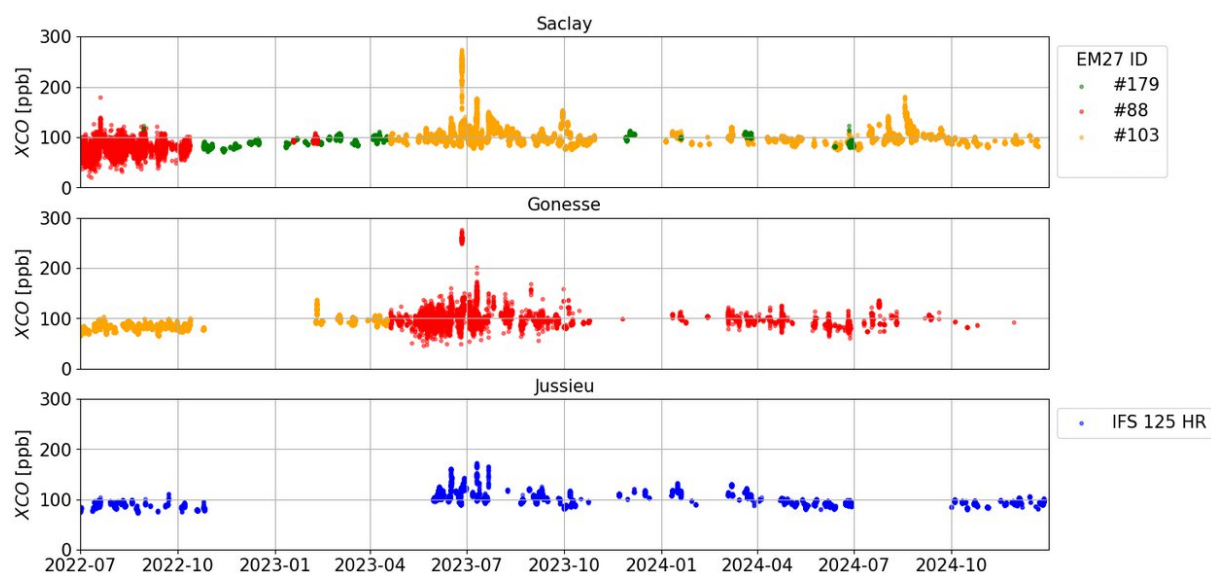


Figure S5. Time series of XCO total column measurements in Saclay, Gonesse and Jussieu from 2022-07-01 to 2024-12-31.

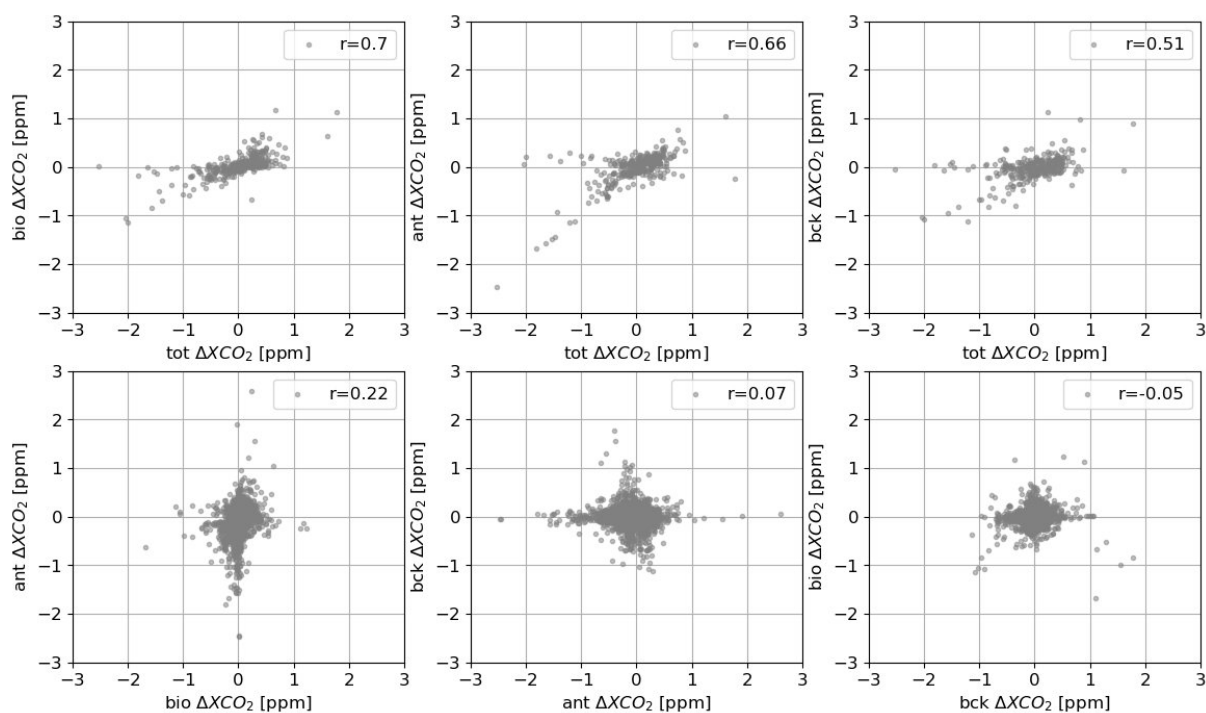


Figure S6. Correlations between simulated components of XCO₂ spatial gradients across the Paris' urban area, from 2022-07-01 to 2024-12-31.