

## IRWG/TCCON 2018 meeting

*Morelos, Mexico, 11-14 June 2018*

# Towards a new NDACC-IRWG site in the center of Paris

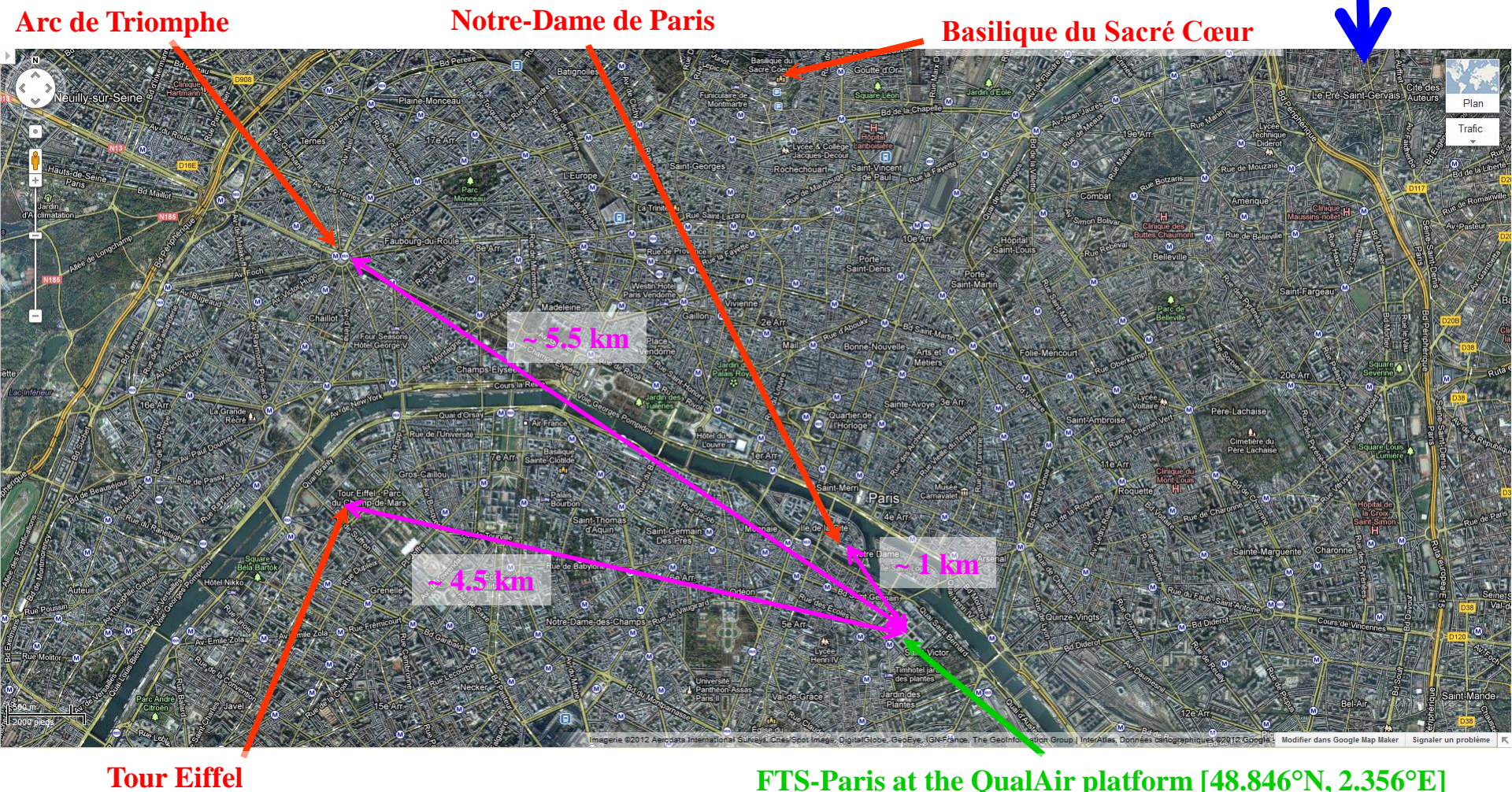
Yao Té, Pascal Jeseck, Dmitry Koshelev and Christof Janssen

*LERMA, UMR 8112, Sorbonne Université/CNRS/Observatoire de Paris/IPSL, France*



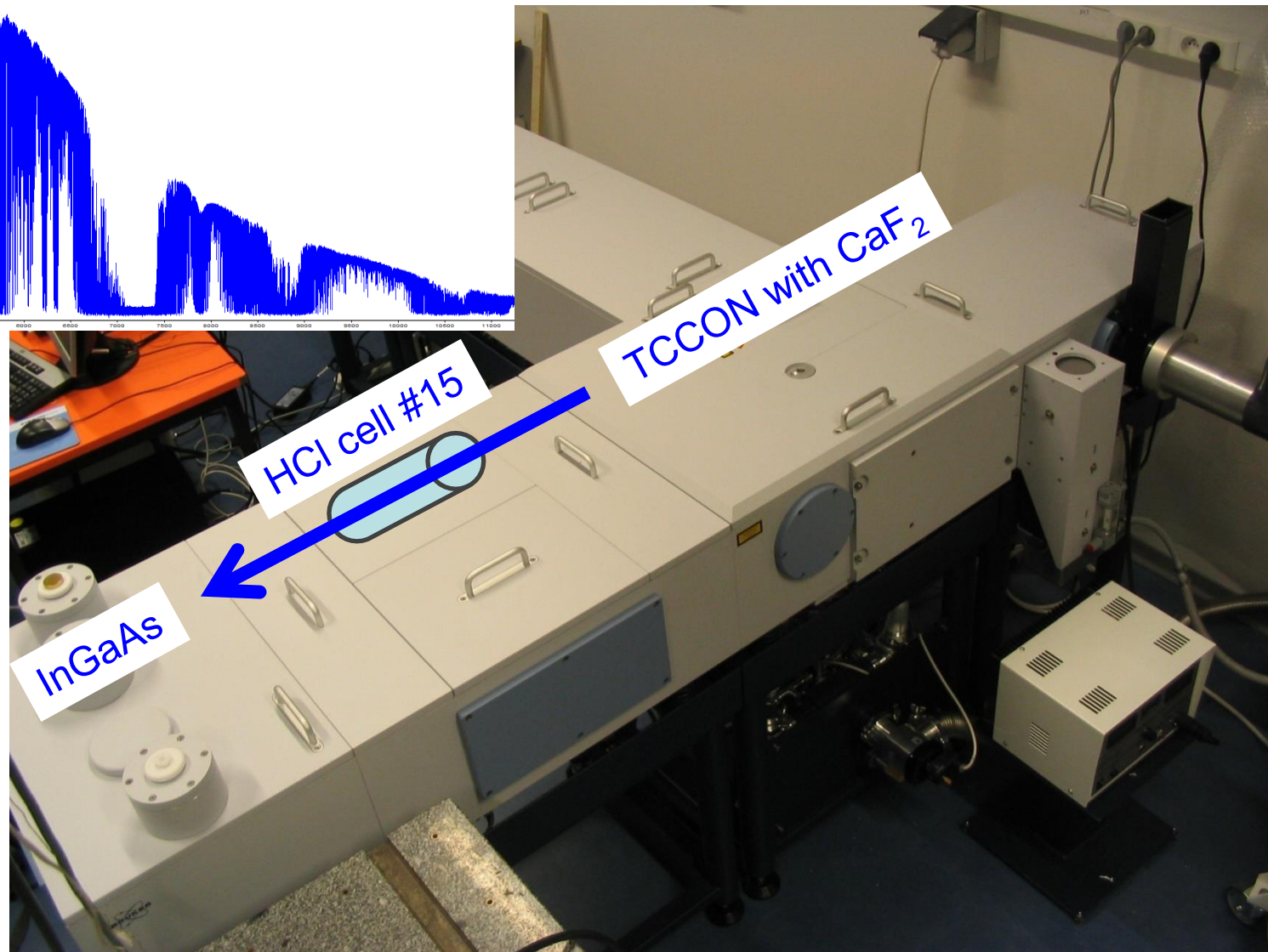
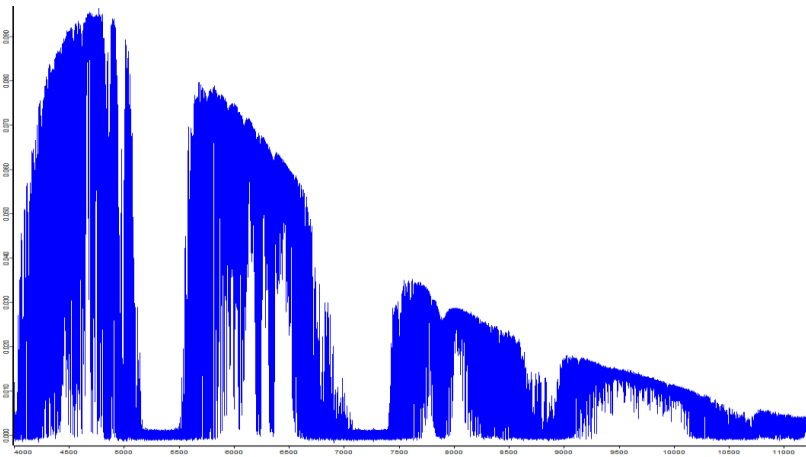
# LERMA ground-based FTS-Paris at Paris megacity

- 3<sup>rd</sup> European largest megacity
- More than 2 million inhabitants in the city of Paris
- More than 10 million inhabitants in the Paris urban area

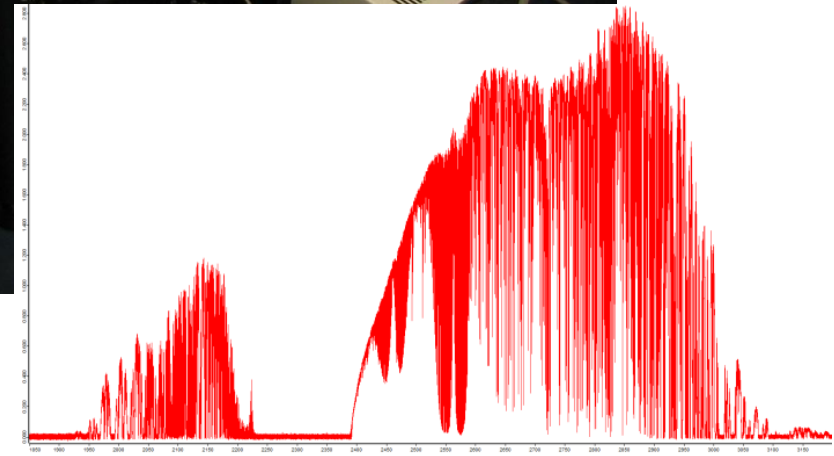
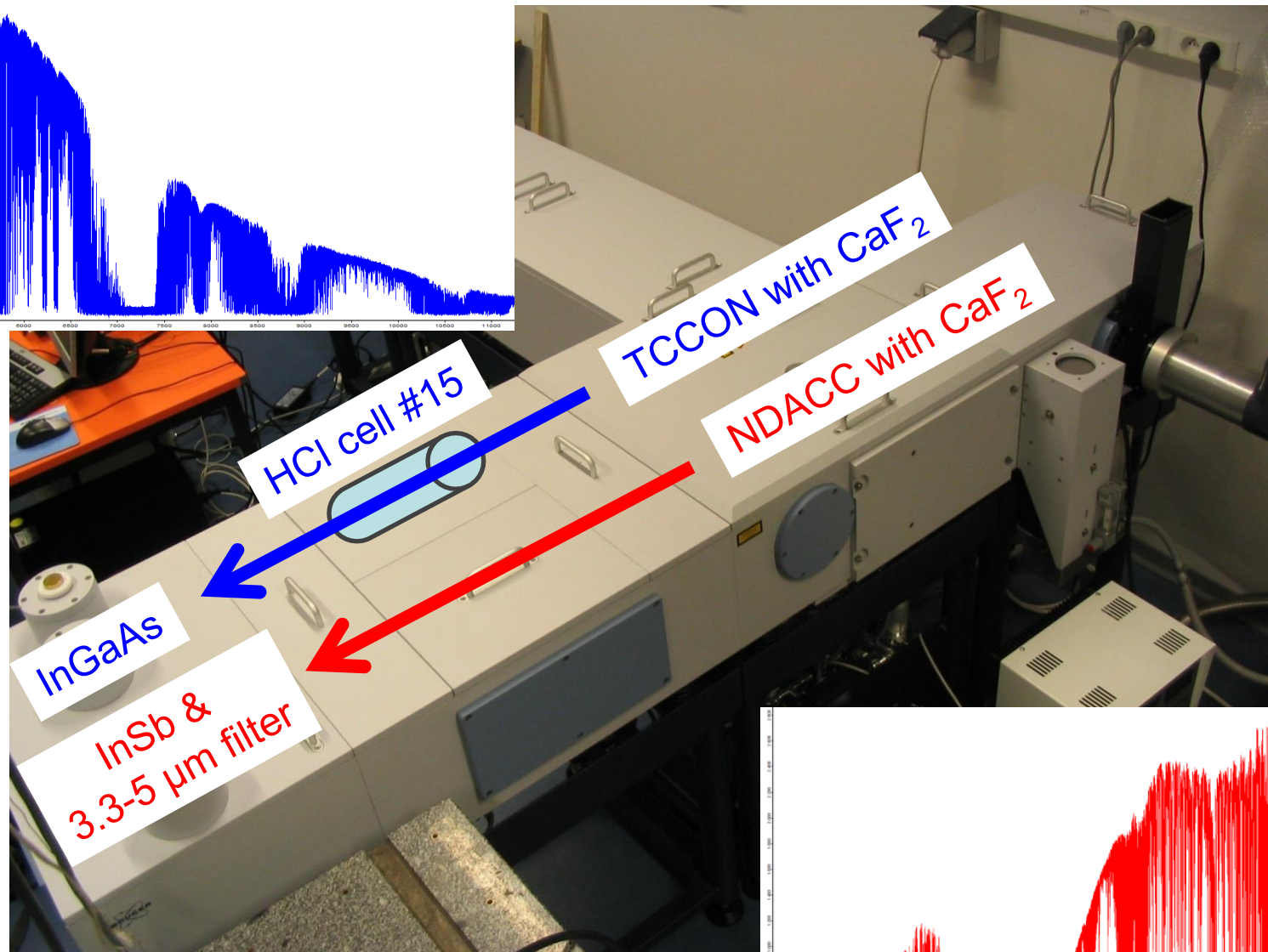
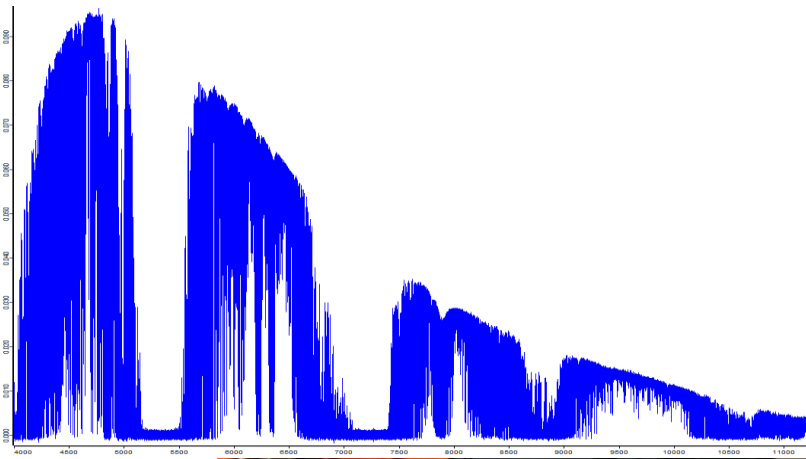




# TCCON & NDACC configurations



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# Available gas cells & optical filters

→ HBr cell #10 delivered in 2001

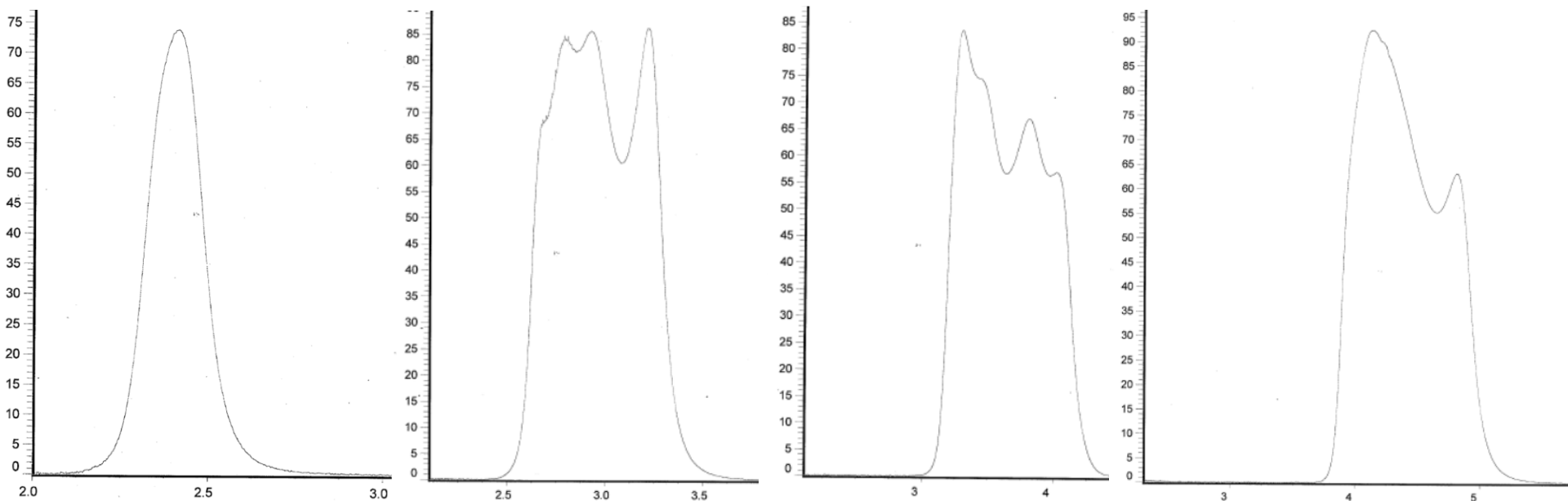
→ New HBr #80 and N<sub>2</sub>O #26 cells since 2016



→ NDACC-IRWG optical filters

⇒ #1 to #5 for InSb detector + one extended filter (3.3 to 5  $\mu$ m)

⇒ #7 & #8 for MCT detector but missing 7.4-15  $\mu$ m filter

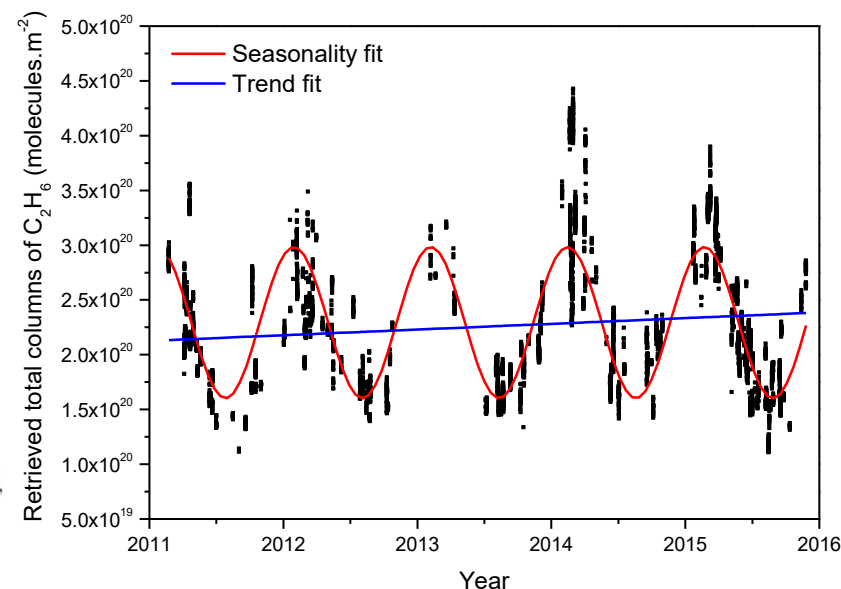


# Participation in NDACC-IRWG global and harmonized studies

- ➔ Té *et al.* (2016) on CO seasonality at Paris, Jungfraujoch & Wollongong
- ➔ Hase *et al.* (2017) on the blind N<sub>2</sub>O cell exercise
- ➔ Vigouroux *et al.* (2018) on NDACC harmonized formaldehyde time-series
- ➔ Mahieu *et al.* on observation and simulation of ethane
- ➔ With NCAR : CO, C<sub>2</sub>H<sub>6</sub> & OCS data delivered
- ➔ With IUP/Bremen : OCS data delivered
- ➔ Next: joining the channeling exercise

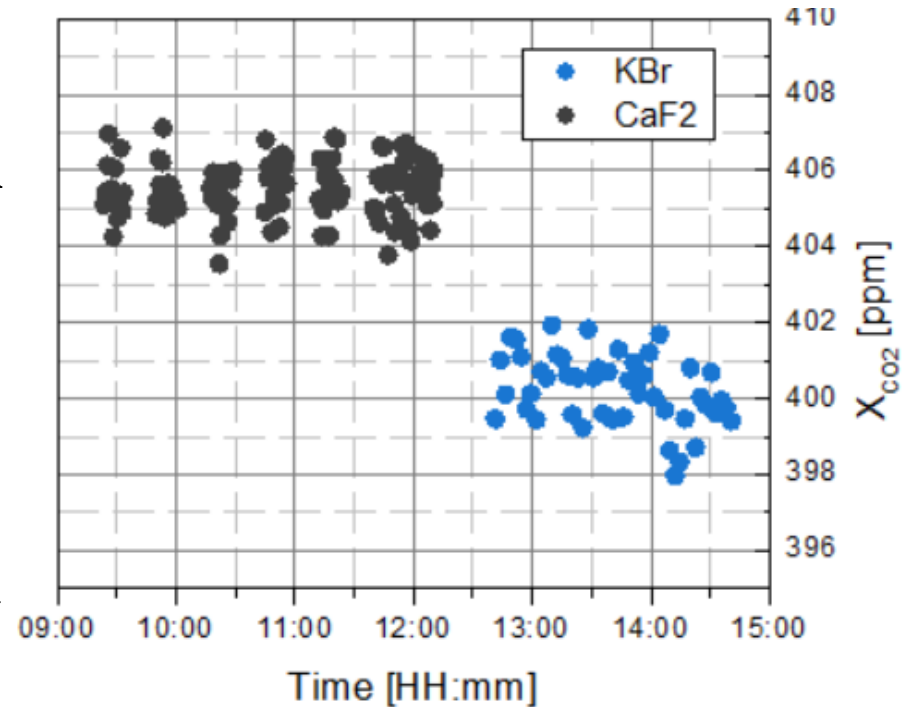
## NDACC harmonized formaldehyde time-series from 21 FTIR stations covering a wide range of column abundances

Corinne Vigouroux<sup>1</sup>, Carlos Augusto Bauer Aquino<sup>2</sup>, Maïté Bauwens<sup>1</sup>, Cornelis Becker<sup>3</sup>, Thomas Blumenstock<sup>4</sup>, Martine De Mazière<sup>1</sup>, Omaira García<sup>5</sup>, Michel Grutter<sup>6</sup>, César Guarín<sup>6</sup>, James Hannigan<sup>7</sup>, Frank Hase<sup>4</sup>, Nicholas Jones<sup>8</sup>, Rigel Kivi<sup>9</sup>, Dmitry Koshelev<sup>10</sup>, Bavo Langerock<sup>1</sup>, Erik Lutsch<sup>11</sup>, Maria Makarova<sup>12</sup>, Jean-Marc Metzger<sup>13</sup>, Jean-François Müller<sup>1</sup>, Justus Notholt<sup>14</sup>, Ivan Ortega<sup>7</sup>, Mathias Palm<sup>15</sup>, Clare Paton-Walsh<sup>8</sup>, Anatoly Poberovskii<sup>12</sup>, Markus Rettinger<sup>15</sup>, John Robinson<sup>16</sup>, Dan Smale<sup>16</sup>, Trisseygeni Stavrakou<sup>1</sup>, Wolfgang Stremme<sup>6</sup>, Kim Strong<sup>11</sup>, Ralf Sussmann<sup>15</sup>, Yao Té<sup>10</sup>, and Geoffrey Toon<sup>17</sup>



# Perspectives

- ➔ Paris is already a TCCON station
- ➔ IFS-125HR operated under vacuum
  - ⇒ Use of KBr entrance window
- ➔ Beamsplitters test
  - ⇒ KBr versus  $\text{CaF}_2$
- ➔ Sun-tracker has just been upgraded
  - ⇒ January through May 2018



- ➔ NDACC measurements since June
  - ⇒ Regular measurements with filters #1 to #5 (InSb channel)
  - ⇒ Measurements during specific campaigns with filter #6 (MCT channel)



# Acknowledgments



**Thank you for your attention**

