

**CHIOTTO**

Continuous High-precision Tall Tower Observations of greenhouse gases

Project nr. EVK2-CT-2002-00163



**WORKSHOP ANNOUNCEMENT**

Dear colleague,

In the framework of the CHIOTTO project a workshop will be organised in Amsterdam, The Netherlands, on **March 9 and 10 of the year 2006**. The title and subject of the workshop is **“The potential of tall tower GHG concentration data in (inverse) transport models”**. The meeting place is conference room 15-03 of the Shell building, overlooking the Amsterdam city center from the North bank of the river IJ. The workshop will limited to about 35 participants, so you better hurry.

The purpose of the meeting is to stimulate the exchange between experimentalists en modellers and to provide input to a set of resulting papers on the subject. We plan to provide before the end of this year some of the brand new continuous concentration data from the CHIOTTO towers to those modellers that are interested in testing these in model inversions. At the workshop the main results of the CHIOTTO project will be presented: the measurements, the techniques developed and the quality of the data (precision, accuracy, data coverage). Hopefully together with results from the (inverse) modelling community using the latest CHIOTTO dataset. We would therefore like to invite you to attend this workshop. Support for scientists from new and potential EU member states is possible thanks to support of the CarboEurope IP office.

If you would like to present a talk and/or participate then please complete the WinWord form you received with this announcement and send it **before December 15** by email to: krijnen@ecn.nl or print it out and fax it to +31-224-5648488. A detailed agenda and travel details will follow right after the registration deadline. **The deadline for 1 page abstracts is Februari 1, 2006.**

Please feel free to pass this message on to other people of whom you think that they could be interested in this workshop. My apologies if this message has reached you more than once.

Best regards,

Alex Vermeulen

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WORKSHOP ANNOUNCEMENT

**What is CHIOTTO?**

Late 2002 the European Union funded a new RTD project under the “Fifth Framework Programme”. This project is named CHIOTTO (<http://www.chiOTTO.org>): Continuous High precision Tall Tower Observations of greenhouse gases. CHIOTTO is a consortium of nine European scientific research institutes and universities operating a network of eight tall towers in Europe. CHIOTTO is one component of the much larger CarboEurope (once cluster, now IP) project (<http://www.carboeurope.org>) which is aiming at quantifying and understanding the terrestrial carbon balance in Europe.

From these eight towers we measure semi-continuously several greenhouse gases and related tracer species. The species measured varies somewhat from tower to tower, but include CO<sub>2</sub>, CH<sub>4</sub>, CO, N<sub>2</sub>O, SF<sub>6</sub>, O<sub>2</sub>/N<sub>2</sub>, and <sup>222</sup>Rn. The top heights of the towers range from 103 to 310 m above ground level, and sample measurements will be made from several heights at each tower, allowing vertical profiles to be determined. The CHIOTTO tower network spans a longitudinal range from Scotland (03°W) to eastern Poland (23°E), and a latitudinal range from Sweden (60°N) to northern Italy (43°N).

The primary motivation for obtaining atmospheric data from tall towers is to fill existing measurement gaps in geographic location and on spatial scales. In obtaining “background” atmospheric measurements we wish to observe and quantify relatively small, long term, synoptic scale changes from within the relatively large “noise” of both localised diurnal cycles and localised anthropogenic emissions. Therefore, such measurements traditionally have been made from coastal or alpine locations. This leaves a significant data gap on spatial scales which tall tower measurements, providing data on scales of 500 km<sup>2</sup> to 100,000 km<sup>2</sup>, possibly are able to fill.

Table: Some parameters of the CHIOTTO tall tower.

Name		Height (m)	Position		Concentration measurement (levels)							Flux meas		Operator
			Lon	Lat	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	SF <sub>6</sub>	CO	<sup>222</sup> Rn	Flasks	CO <sub>2</sub>	CH <sub>4</sub>	
Cabauw	NL	200	04°56'	51°58'	4	4	4	4	4	1	✓	2		ECN
Griffin	UK	232	-2°59'	56°33'	1	1	1	1	1	1				UEDIN
Hegyhatsal	H	117	16°39'	46°57'	4	1	1	1	1		✓	2		ELTE
Orleans	F	203	2°07'	46°58'	3	3	3	3	3	1	✓			LSCE
Norunda	S	102	17°28'	60°05'	4	1						2	1	LUPG
Florence	I	245	11°16'	43°49'	1	1	1	1	1					UNITUS
Ochsenkopf	D	177	11°49'	50°03'	3	3	3	3		1	✓			MPIBGC
Bialystok	PL	330	22°45'	52°15'	5	5	5	5	5		✓			MPIBGC

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## WORKSHOP ANNOUNCEMENT

Venue: conference room 15-03; Shell Research and Technology Centre (SRTCA), Badhuisweg 3, Amsterdam

[http://www.srtca.shell.com/Howtoeach/how\\_to\\_reach\\_srtca.htm](http://www.srtca.shell.com/Howtoeach/how_to_reach_srtca.htm)

Please bring your ID with you.



### *Preliminary agenda*

#### **Day 1, Thursday March 9 2006**

12:00 Registration

13:00 Welcome and introduction to CHIOTTO and the goals of the workshop (A. Vermeulen)

*Session 1: The CHIOTTO tall tower measurements (chair A. Vermeulen)*

13:15 Measurements techniques at the different towers

13:30 Data processing and quality assurance (A. Jordan)

13:50 Intercomparison results (M.Schmidt)

14:20 Report of measurement results/first analysis per tower (CHIOTTO PI's)

15:00 *Tea/Coffee*

*Session 2: Modelling general & forward results of high resolution models (chair M. Heimann)*

16:00 Overview of the state of the art (P. Ciais)

16:30 3 talks

17:30 End of session

20:00 Workshop dinner

#### **Day 2, Friday March 10 2006**

*Session 3: Carbon dioxide measurements of CHIOTTO and their use in (inversion) models (chair C. Roedenbeck)*

8:30 4-6 talks

10:30 *Tea/Coffee*

*Session 4: Methane measurements of CHIOTTO and their use in (inversion) models (chair P. Bergamaschi)*

11:00 2-3 talks

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*12:00 Lunch*

*Session 5: Measurements of other gases (CFC's, SF<sub>6</sub>, Isotopes) and their use in (inversion) models  
(chair I. Levin)*

*13:30 2-3 talks*

*15:00 Tea/Coffee*

*Wrap-up and discussion (chair A. Vermeulen)*

*15:15 Summary*

*15:30 Discussion*

*16:00 End of the workshop*

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