



# **Nineteenth International Workshop on Laser Ranging**

**Annapolis, Maryland  
October 27 – 31, 2014**

**Organized and Sponsored by:**

- National Aeronautics and Space Administration  
Goddard Space Flight Center**
- Smithsonian Astrophysical Observatory**
- International Laser Ranging Service**



# Workshop Supporters



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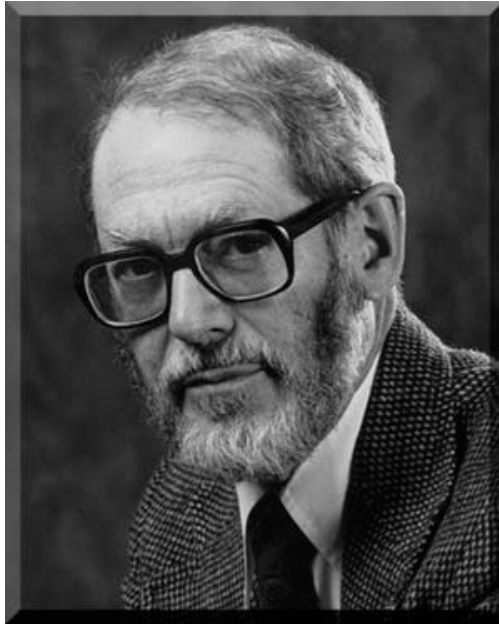
Contributor



**Cybioms**

**GuideTech**

# Fathers of the Workshop



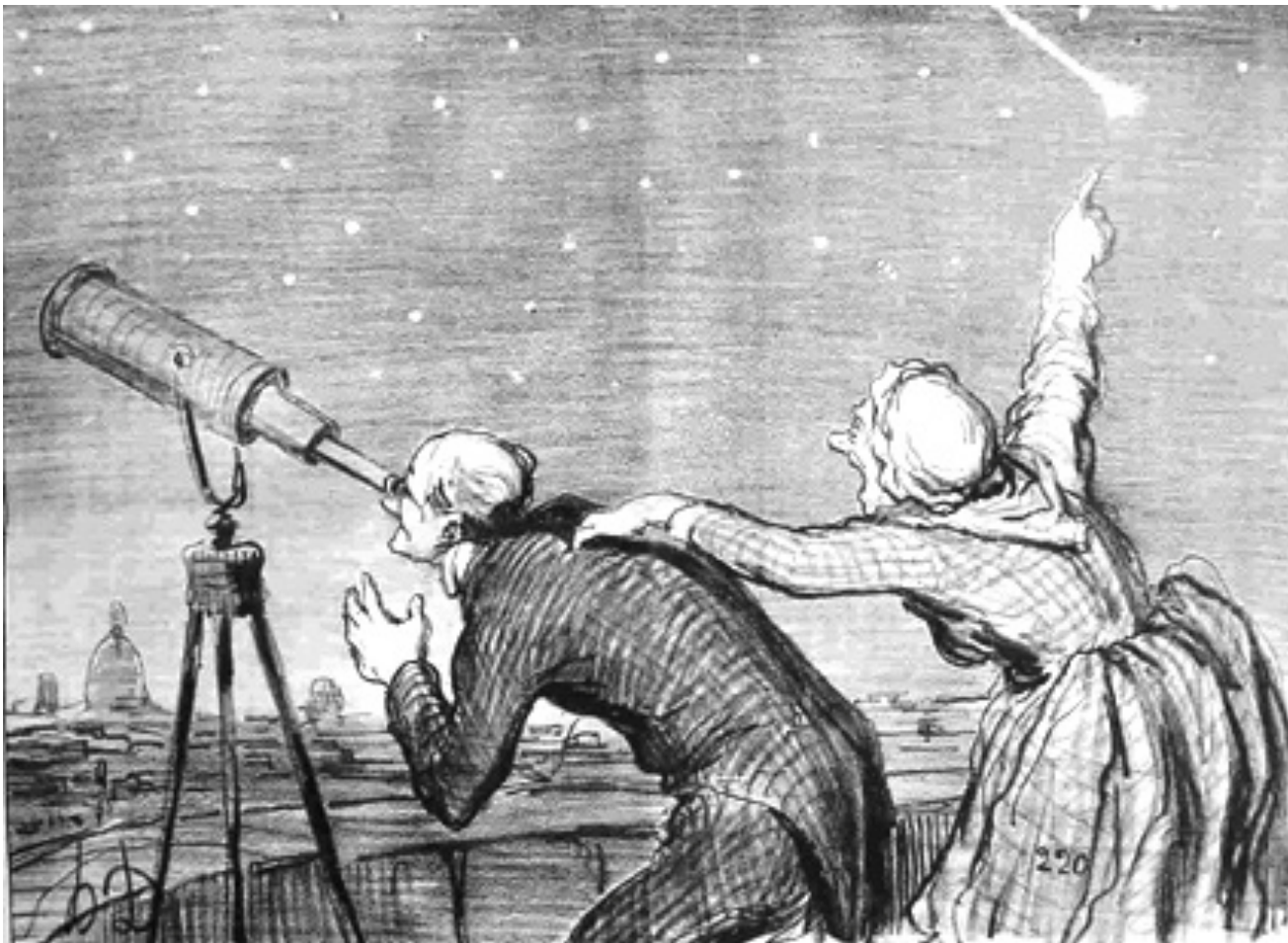
**George C. Weiffenbach**  
**1921 - 2003**



**Karel Hamal**  
**1932 – 2007**

To provide an opportunity for engineers, practitioners, analysts and scientists to meet to exchange ideas, to compare technologies, to connect the measurements with the science, and to discuss the path forward.

# Early View of Blind Pointing



# And now – millimeters



# International Laser Ranging Workshops

No.	Year	Location
1 <sup>st</sup>	1973	Lagonissi, Greece
2 <sup>nd</sup>	1975	Prague, Czech
3 <sup>rd</sup>	1978	Lagonissi, Greece
4 <sup>th</sup>	1981	Austin TX, USA
5 <sup>th</sup>	1984	Herstmonceux, UK
6 <sup>th</sup>	1986	Antibes, France
7 <sup>th</sup>	1989	Matera, Italy
8 <sup>th</sup>	1992	Annapolis MD, USA
9 <sup>th</sup>	1994	Canberra, Australia
10 <sup>th</sup>	1996	Shanghai, China

No.	Year	Location
11 <sup>th</sup>	1998	Deggendorf, Ger.
12 <sup>th</sup>	2000	Matera, Italy
13 <sup>th</sup>	2002	Washington DC, USA
14 <sup>th</sup>	2004	San Fernando, Spain
15 <sup>th</sup>	2006	Canberra, Australia
16 <sup>th</sup>	2008	Poznan, Poland
17 <sup>th</sup>	2011	Bad Koetzing, Ger.
18 <sup>th</sup>	2013	Fujiyoshida, Japan
19 <sup>th</sup>	2014	Annapolis, MD
<b>20<sup>th</sup></b>	<b>2016</b>	<b>Potsdam, Germany</b>

We are accepting offers for the 2018 Workshop



# Special Events/Activities



- Ice Breaker on Monday Evening
- Working Group Meetings on Tuesday and Thursday Afternoons
- Trip to GSFC and GGAO on Wednesday and the Poster Session on Wednesday Evening
- Banquet on Thursday Evening
  - Keynote Speaker: Dr. Piers Sellers/NASA GSFC Deputy Director, Sciences and Exploration Directorate, NASA Astronaut
- Summary Session on Friday Morning
  - Summary from each Session
  - Summary from Each Working Group
- Station Clinics on Friday Afternoon
  - Focusing on Current Station Issues
  - Small Groups, Discussion

# Workshop Success

- Short presentations and discussion
- Trade ideas for path forward
- Short oral (5 min) and written (1 -2 pages) reports at the closing session on Friday morning from **each Session** and **each Working Group**; focus on
  - Things are new and important
  - Issues that we need to address
- All Presentations, Session Reports, and Working Group Reports to be posted on the web
- Short written papers for the proceedings (Oral and Posters)
- Most of all – Meet, talk, exchange ideas with others and enjoy.