Francesco’s legacy: star formation in space and time

Firenze, June 5–9, 2017

Scientific Organizing Committee

Steve Stahler (University of California, Berkeley) (co-Chair)
Hans Zinnecker (Deutsches SOFIA Institut) (co-Chair)
Riccardo Cesaroni (INAF - Osservatorio Astrofisico di Arcetri)
Edvige Corbelli (INAF - Osservatorio Astrofisico di Arcetri)
Daniele Galli (INAF - Osservatorio Astrofisico di Arcetri)
Susana Lizano (IRyA, UNAM)
André Maeder (Geneva Observatory)
Marcella Marconi (INAF - Osservatorio Astronomico di Capodimonte)
Gary Melnick (Harvard-Smithsonian Center for Astrophysics)
Antonella Natta (DIAS)
Kazuyuki Omukai (Tohoku University)
Sofia Randich (INAF - Osservatorio Astrofisico di Arcetri)
Leonardo Testi (INAF - Osservatorio Astrofisico di Arcetri)

Local Organizing Committee

Roberto Baglioni (Università di Firenze)
Patrizia Braschi (INAF - Osservatorio Astrofisico di Arcetri)
Riccardo Cesaroni (INAF - Osservatorio Astrofisico di Arcetri)
Edvige Corbelli (INAF - Osservatorio Astrofisico di Arcetri)
Daniele Galli (INAF - Osservatorio Astrofisico di Arcetri)
Arianne Palla (Firenze)
Barbara Palla (Firenze)

Sponsorship

Istituto Nazionale di Astrofisica
INAF - Osservatorio Astrofisico di Arcetri
Francesco Palla always enjoyed visiting “Villa Il Gioiello” on the Arcetri hill – the last home of Galileo Galilei, in which Galileo lived from 1631 to 1642. “The excitement of Francesco Palla was tangible, as he opened the doors and the windows of Villa Il Gioiello for my visit - says David Block – his kindness to me in Arcetri shall never be forgotten, a true legend he remains.” (Photograph copyrighted 2011 by Professor David L. Block and reproduced with written permission. World rights reserved). Villa Il Gioiello hosted the social dinner of the Conference in a delightful atmosphere.
FOREWORD

This book contains the proceedings of the conference “Francesco’s Legacy: Star Formation in Space and Time”, held in Firenze at the Istituto degli Innocenti from June 5 to 9, 2017. The meeting was dedicated to Francesco Palla (1954 - 2016), an internationally renowned authority in the field of star formation, and Director of the Osservatorio Astrofisico di Arcetri from 2005 to 2011. Some 200 astronomers from all around the world attended. Their professional activities spanned a broad range, but all were motivated by the desire to honour the memory of a distinguished scientist and beloved colleague.

Organizing this memorial conference, not long after Francesco’s passing, was emotionally taxing. In addition, we wanted to cover the very diverse topics within the arena of star formation that occupied Francesco himself throughout his career. Our two goals were, first, to provide a technically sound overview of each subject, in both its observational and theoretical aspects. Speakers summarized recent progress and related prospects for future advances. Second, we wanted to introduce the delightful and expansive personality of Francesco to younger people who had never directly interacted with him.

The scientific programme consisted of four sessions, devoted to the evolution of molecular clouds, protostellar and pre-main sequence evolution, young stellar clusters, and the first stars. In addition to 55 scientific talks and 105 posters covering these topics, there were also more informal talks by Steve Stahler, Gary Melnick, Thierry Montmerle, John Bally, and Sofia Randich, who shared vivid memories of their longtime collaboration and friendship with Francesco. Lapo Casetti and Paolo Boncinelli described Francesco’s intensive activity in public and Cecilia Ceccarelli graced the meeting with a brilliantly delivered public talk on “Our Astrochemical Origins” yet another topic of interest to Francesco.

We wish to thank everyone who contributed to the organization of the conference, especially the SOC and the LOC members for their steadfast commitment. Hans Zinnecker deserves special acknowledgement for initially promoting the idea of this meeting. We also thank Francesco’s wife, Sylvie Duvernoy, who surprised us with Francesco’s posthumous publication “The Universe of the Little Prince”, kindly reviewed by Paolo Tozzi. Finally, we are grateful to Francesco and Sylvie’s daughters, Arianne and Barbara, who designed the beautiful poster and generously provided their time throughout the entire conference. We acknowledge financial support by INAF.

Riccardo Cesaroni, Edvige Corbelli, Daniele Galli

The scientific programme and pdf files of oral and poster presentations are available on the web site of the conference http://www.arcetri.astro.it/sfst2017

Cover caption: a detail of Villa Il Gioiello courtyard in Arcetri with Galileo’s original sketch of the Pleiades (Courtyard original photo and graphics credits: R. Baglioni)
Fig. 2. Conference picture (courtesy Mark McCaughrean)