

FOREWORD

This volume of *Memorie della SAI* collects the contributions to the workshop “Research and Development Activities in INAF and its surroundings against the COVID19 pandemic” organized by INAF, the Italian National Institute for Astrophysics, on 10 and 11 March 2021. Presentations can be found at this link <https://indico.ict.inaf.it/event/1423/>. Starting from the critical phases of the COVID19 pandemic in March 2020, INAF has undertaken a series of research and development activities in the fight against the spread of the pandemic, following the Government’s request to Universities and Research Bodies. Many people belonging to different INAF Institutes have participated in these studies, collaborating with universities, other research bodies, and private industries in a context that has favored a multi-disciplinarity approach. Among the main sectors of activity in which INAF was involved, the subject of the contributions of this volume, we recall the measures of inactivation of the SARS-COV-2 virus with UV illumination at different wavelengths, the study of systems based on radiation UV as aids to the spread of infections, the development of models to explain the seasonality of airborne epidemics (including COVID19) due to solar lighting, the development of methodologies to detect viruses and infections with spectroscopic approaches, the monitoring of potentially infected in public areas and environments.

Relevant results have been obtained in all these sectors, which have also had a broad international impact and fostered further research. These activities have also given impetus to the technological innovation area in INAF. The workshop discussed these results, which had broad participation (peaks of up to 250 people connected on the two days of the work). We are grateful to the referees for the critical review process of the published papers. This Volume is dedicated to Nichi D’Amico, our President, who strongly wanted INAF to undertake these activities, followed in person, giving advice, support, and enthusiasm to all the involved people. Nichi passed away in September 2020, but his vision is still guiding us.

Giovanni Pareschi, on behalf of the Scientific Organizing Committee

Scientific Organizing Committee: *Angelo Antonelli, Fabrizio Bocchino, Andrea Comastri, Roberto Della Ceca, Marcella Marconi, Rachele Millul, Ugo Lo Cicero, Isabella Pagano, Giovanni Pareschi, Roberto Ragazzoni, Sofia Randich, Paolo Tozzi*

Local Organizing Committee: *Rachele Millul, Giuseppe Malaspina, Giovanni Pareschi*

