

A banner image showing a dark sky with stars and a large satellite dish or telescope structure in the foreground. The text "Dark and Quiet Skies for Science and Society" is overlaid in a light, sans-serif font.

# Dark and Quiet Skies for Science and Society

## Online Workshop

Toward Recommendations to Protect the Science of Astronomy  
(<http://research.iac.es/congreso/quietdarksky2020/pages/home.php>)

5 - 9 October, 2020 (15:00-17:00 UTC)

### 3rd Circular - 16 Sept 2020

We invite you to participate in the online Workshop on “[Dark and Quiet Skies for Science and Society](#)”, organised by the United Nations Office for Outer Space Affairs ([UNOOSA](#)), the International Astronomical Union ([IAU](#)) and the Instituto de Astrofísica de Canarias ([IAC](#)) with support from NSF’s [NOIRLab](#), between **15:00 to 17:00 UTC on October 5-9, 2020**. Most of the Workshop will also be recorded for later viewing and commenting by people outside the time zones. The online workshop will present initial findings from 5 working groups of the Scientific Organising Committee (SOC), for discussion. Within the two hour period on each workshop day, presentations will first be made by one of the Working Groups and open discussion will follow.

The Workshop, organised at the request of [COPUOS](#), will be held online, while an in-person conference will follow in April 2021, after the report has been presented at the [COPUOS Scientific and Technical Sub-Committee](#) (COPUOS STSC) meeting in February 2021. Based on feedback received, the report will be reviewed and finalised after the April Conference, then presented to the June 2021 COPUOS Meeting.

The **purpose and scope** of the Workshop are to propose to COPUOS STSC a set of recommendations to protect the science of astronomy. If adopted by the UN, these recommendations will be acted upon either by local governments or agreed to at the international level. In preparing the online workshop “Dark and Quiet Skies for Science and Society”, the SOC and Working Groups considered sources of interference that can affect or endanger the visibility of the pristine night sky in all wavelength regimes, and the report identifies measures that will avoid or mitigate negative impacts. Care is being taken to propose recommendations that are both technically and economically feasible and do not affect the main purpose of the potential source of interference, e.g., safety-driven urban illumination, space-based network connectivity, and the like.

## Programme

The online workshop takes place on Zoom from **15:00 UTC to 17:00 UTC** (=17:00 to 19:00 Central European Summer Time) on 5-9 October, 2020. It will be recorded for later viewing. The workshop will present initial findings from 5 working groups of the Scientific Organising Committee (SOC), for discussion. Within the two-hour period, presentations will first be made by one of the Working Groups and open discussion will follow. Each day of the workshop focuses on a different topic.

#### **Monday 5 October: protection of dark sky oases**

The creation and protection from light pollution of areas from which people can enjoy the clear visibility of the starry sky aims to solve the widest and most general incidences of light pollution.

#### **Tuesday 6 October: light pollution impact on the bio-environment**

While this aspect is not directly related to astronomy, it is a consequence of the global effects of new illumination technologies. By protecting the night sky from light pollution, negative effects on the bio-environment can also be mitigated without affecting the needed illumination and provide a substantial saving in energy consumption.

#### **Wednesday 7 October: protection of existing and future astronomical observatories**

Several Countries and International Organisations have made very large financial investments in building and operating large astronomical facilities. Most of these facilities are open to astronomers of any Country. In the interest of the world community, these sites need to be protected from light pollution and from artificial local climate alterations.

#### **Thursday 8 October: impact of satellite constellations**

The impact of the tens of thousands of communication satellites that are being placed in LEO (Low Earth Orbit) has only recently raised the attention of the astronomical community and of the general public. Their real impact has now been carefully established on the basis of sound simulations and initial observational data.

#### **Friday 9 October: protection of radio astronomy**

Similar to the impact of satellite constellations on optical astronomy, radio interferences can also be geographically wide-ranging. Radio astronomy has a long history of successful international agreements on the protection of radio interests from anthropic ground-based radio broadcastings. However, the large number of additional communication satellites will make regulatory action even more important.

The feedback and discussions during the workshop will shape the next version of the report.



### **Registration**

Registration for the Dark & Quiet Skies online Workshop is *free*.  
(You must register to acquire a link later.)

<http://research.iac.es/congreso/quietdarksky2020/pages/registration.php>.

Deadline for registration is Sept. 30, 2020.

### **Supporting Institutions**

