Joint Center for UltraViolet Astronomy

INTERNATIONAL AGREEMENT BETWEEN THE **RUSSIAN FEDERATION** AND **SPAIN** ON COOPERATION FOR THE PEACEFUL USE OF THE ULTRATERRESTRIAL SPACE (2006).

THE **SPACE TELESCOPE WSO-UV** IS THE **MAIN COLLABORATION** IN THIS FIELD BETWEEN SPAIN AND THE RUSSIAN FEDERATION.

BETWEEN **2007 AND 2009** THREE INTERNATIONAL AGREEMENTS ARE SIGNED BETWEEN SPAIN AND THE RUSSIAN FEDERATION TO REGULATE THIS COLLABORATION: **GROUND SEGMENT** DEVELOPMENT, **TIME SHARING POLICY**, CONTRIBUTION OF THE **IMAGING INSTRUMENT** TO THE PAYLOAD BY SPAIN.

THE UNIVERSIDAD COMPLUTENSE DE MADRID AND THE Институт астрономии Российской академии наук HAVE SHARED THE SCIENTIFIC RESPONSABILITY FOR THE PROJECT SINCE 2007.

- SUPPORT TO THE NATIONAL AGENCIES ON THE SUPERVISION OF THE PROJECT
- SUPPORT TO THE NATIONAL SCIENTIFIC COMMUNITIES TO PARTICIPATE IN THE PROJECT
- JOINT DEVELOPMENT OF TECHNICAL WORK PACKAGES
- JOINT ORGANIZATION OF ACTIVITIES: CONFERENCES, MEETINGS, WORKSHOPS…
- JOINT PARTICIPATION IN NATIONAL AND INTERNATIONAL MEETINGS
- SHARED RESPONSABILITIES: SCIENCE OPERATIONS CENTER, IMAGERS, SUPPORT TO THE INTERNATIONAL SCIENTIFIC COMMUNITY

JCUVA

Joint Center for Ultraviolet Astronomy

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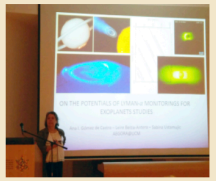
News

Agenda WorkShop Programme JCUVA

26-27 October 2017

"Ultraviolet Sky Surveys: the needs and the means" Conference. Tel Aviv, Israel.

10-14 July 2017



WELCOME TO THE JOINT CENTER FOR ULTRAVIOLET ASTRONOMY

Welcome to the Joint Center for UltraViolet Astronomy (JCUVA).

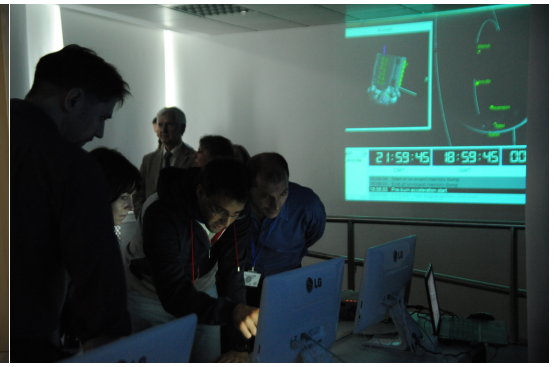
Our primary task is to provide support for the joint use of the WSO-UV premises at the Universidad Complutense of Madrid (UCM).

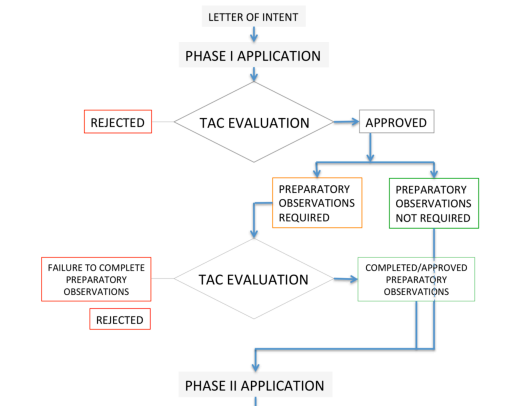
About JCUVA

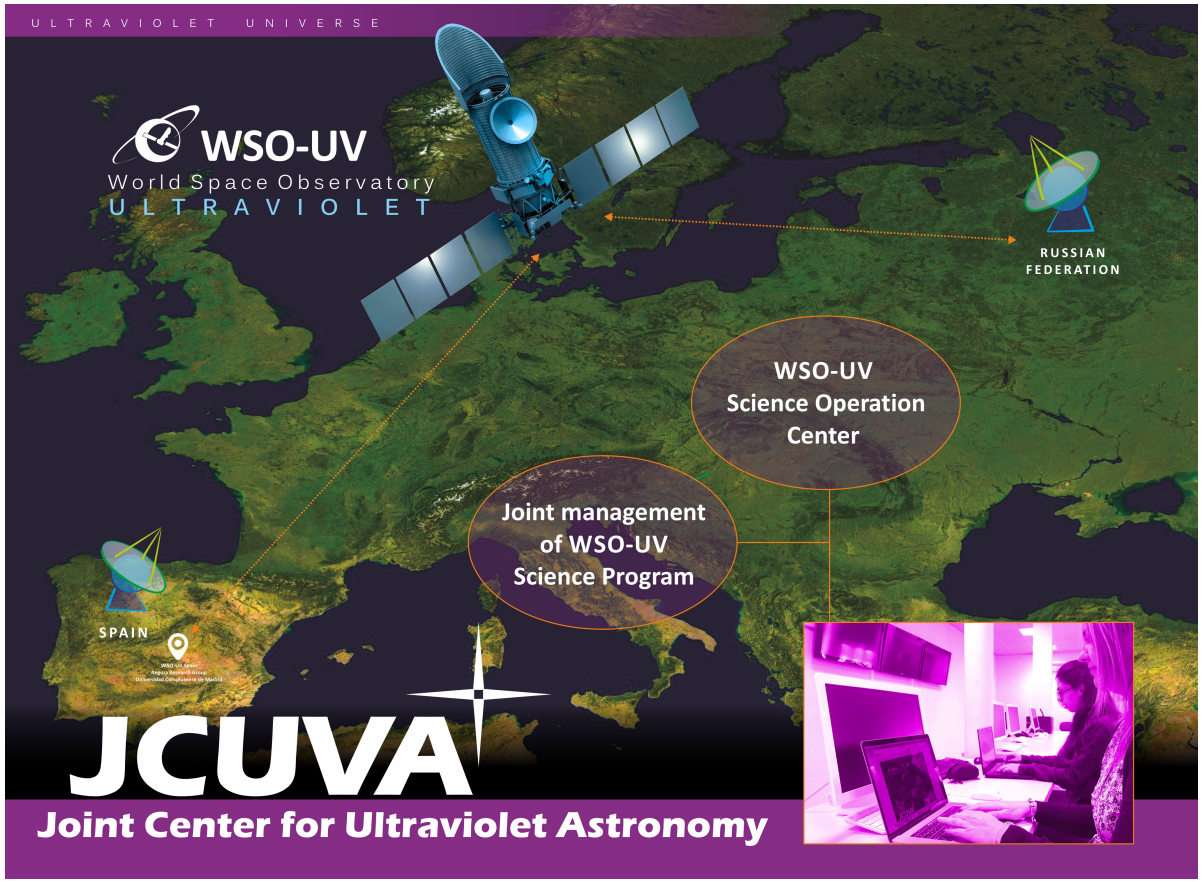
The Spanish-Russian Joint Center for Ultraviolet Astronomy (JCUVA) main task is to support the joint use of the World Space Observatory UV (WSO-UV) premises at the Universidad Complutense of Madrid (UCM). The JCUVA hosts the facilities required for conducting the WSO-UV science operations run by Russia and Spain. Its activities also comprise the joint management of the WSO-UV science program.

The JCUVA activities derive from the general collaboration agreement signed by Spain and the Russian Federation in 2007, aimed at the development of the World Space Observatory-Ultraviolet (WSO-UV) and from the agreement signed in 2017

Gallery

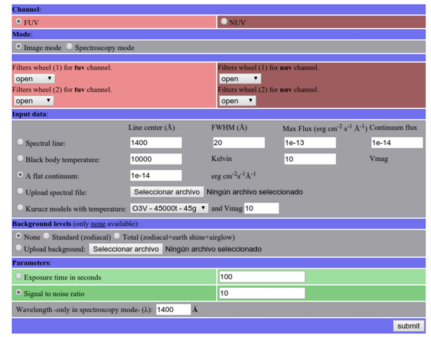


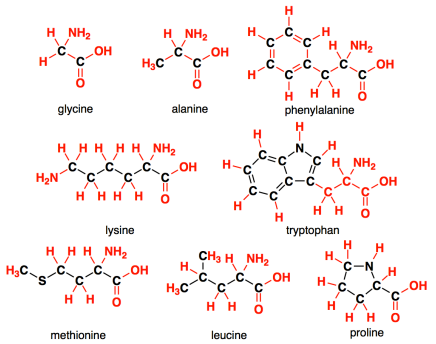


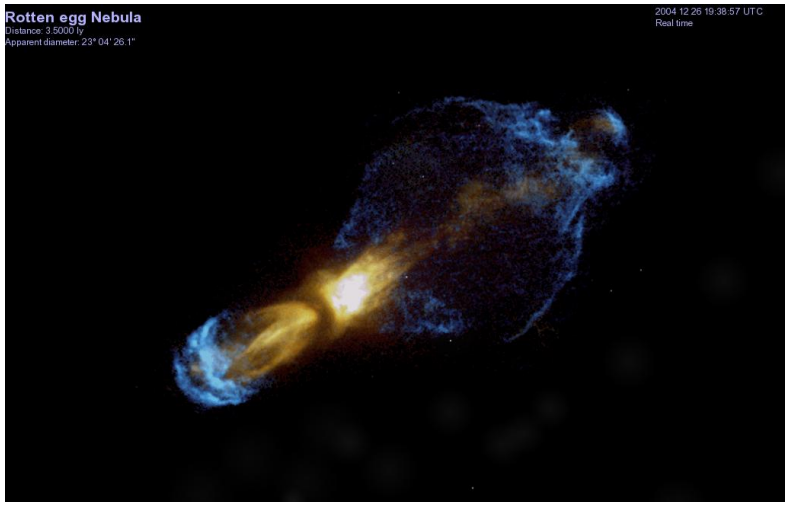


ETC (Exposure Time Calculator)

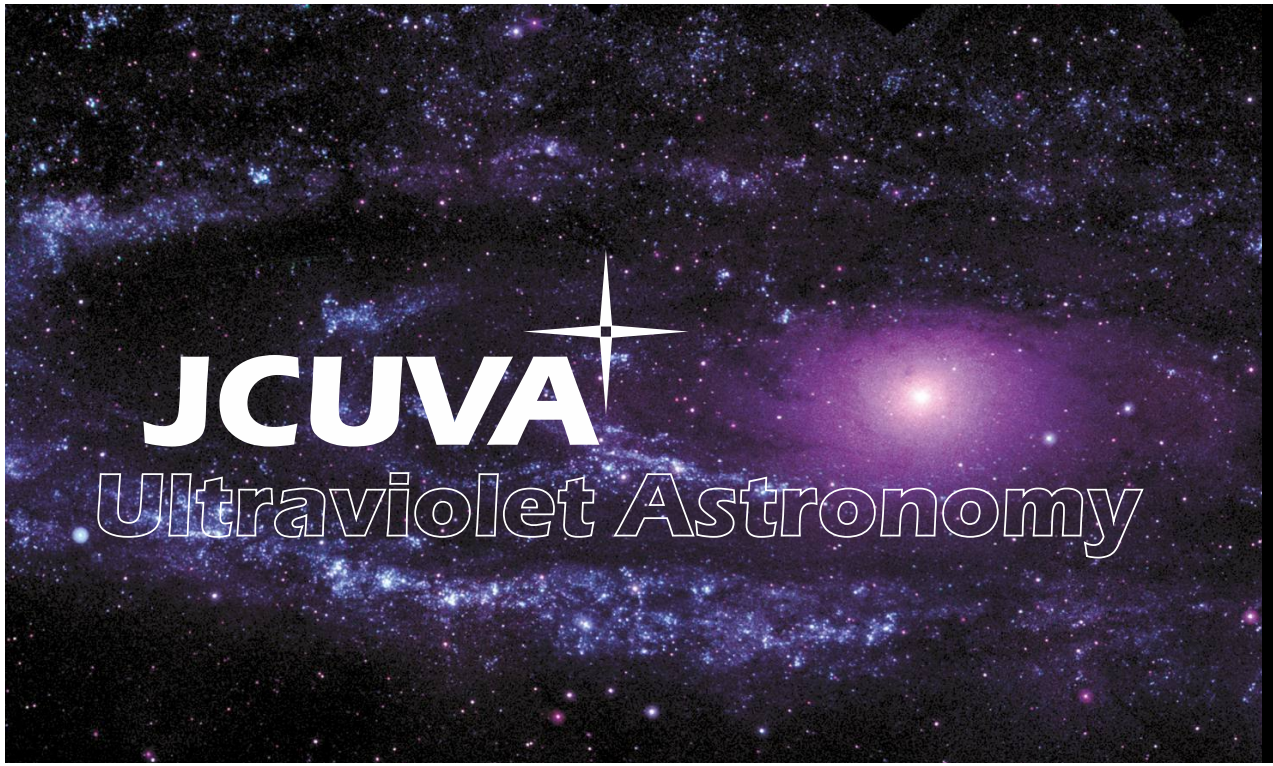
The Spanish WSO-UV Team at the Universidad Complutense de Madrid has developed an Exposure Time Calculator (ETC) for FCU. The ETC allows the astronomers to evaluate the obseving time needed for a given scientific observation. FCU ETC allows computing the exposure time needed to reach an specific signal-to-noise ratio (S/N) for a given observation, or viceversa. FCU ETC is available here. The user's manual can be downloaded as a PDF.





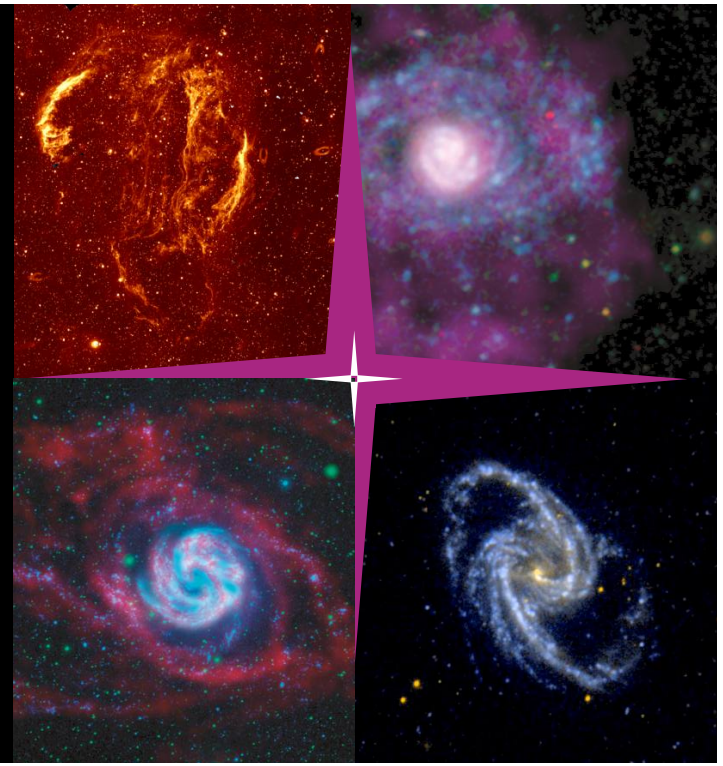


DIFFUSE MATTER IN SPACE - ULTRAVIOLET SOURCES



Access to the ultraviolet (UV) range of the electromagnetic spectrum is fundamental for astrophysics, from the study of life emergence environments to the understanding of chemical evolution and mixing for the last 10,000 million years of the Universe, about 80% of the Universe life. However, this access is severely limited because the Earth's atmosphere blocks the UV radiation coming from the space. Therefore, UV observatories must operate in the space, outside this natural filter.

Determining the composition and the distribution of the intergalactic matter is fundamental to understand the nature of the dominant forces in the Universe, the nature of the dark matter and the chemical evolution of the Universe. The Ultraviolet astronomy is also fundamental to study stars and planetary atmospheres. The study of extrasolar planet transits provides important information on the planetary atmospheres and their interaction with the parent star. Finally, UV spectral wavelengths are also essential to investigate the astronomical engines, plasma engines which are capable of accelerating ionized gas up to relativistic velocities.



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