



Inter-commission WG C1-F2-F3-H2 Education and Training in Astrobiology Report 2018-2019

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This Working Group has been created in October 2015 and renewed in 2018 in order to coordinate training, education and outreach activities in astrobiology at the international level.

During the last 2 years we have pursued 4 goals:

1) To collect all lectures and conferences in astrobiology which have been recorded during the last 10 years (whatever the language is), to categorize them according to their field and the public concerned (from general public to specialist of the field), and to make them available for free on a website so that people with few financial resources can access them remotely.

Our platform « **Online courses in astrobiology** » : <http://astrobiovideo.com/en> (launched in November 2017) has been enriched by many lectures (recorded during the Training Schools we have organized between 2018 and 2020) and several MOOCs. So far 3 languages are available: French, English and Spanish.

2) To produce handbooks and Massive Open Online Courses (MOOCs) for university students - pooling the individual national efforts that are already in progress over the world

6 MOOCs have been produced or are still in progress :

- Chris Impey : **Astronomy : exploring Time and Space** :
<https://www.mooc-list.com/course/astronomy-exploring-time-and-space-coursera>
Astrobiology: Exploring other worlds
<https://www.coursera.org/learn/astrobiology-exploring-other-worlds>
- Charley Lineweaver : **Are we alone?** (in progress)
- Charles Cockell: **Astrobiology**: <http://astrobiovideo.com/fr/search?t=mooc>
- Sean Raymond/Alessandro Morbidelli: **Modelling the origins of Jovian Planets**:
<http://astrobiovideo.com/fr/search?t=mooc>
- Sun Kwok: **Our place in the Universe**: <https://www.edx.org/course/our-place-in-the-universe>

3) To develop outreach for the general public and high school teachers.

Our book « **La plus grande histoire jamais contée** », published in 2017 by Belin Publisher, has received in 2019 the Academy of Science Prize for 12-16 years old pupils and has been translated in Chinese (Jianxi Education Publishing House).

Our book “**Young Sun, early Earth and the origins of life**”, published in 2012 by Belin Publisher has been updated and published in Japanese by Nishimura Publisher (2020, in press)

4) To create an annual international astrobiology training school (TS) lasting 1-2 weeks, which would train the young generation in the basics of astrobiology.

In 2016 the annual Training School « Rencontres Exobio pour Doctorants/Astrobiology Introductory Course » has got the recognition of IAU.

Since 2018 we have organized 2 other sessions <http://www.exobiologie.fr/red/index.php/en/red18-program/> ;<http://www.exobiologie.fr/red/index.php/en/red19-program/>. The 2020 edition has been cancelled because of the Coronavirus crisis: <http://www.exobiologie.fr/red/index.php/en/red20-program/>

In addition to this annual TS, we have organized twice a 2-days TS before one international conference to let the local students (and also the conference PhD students) have a basics course in astrobiology :

a) in Vienna in august 2018 just before the IAU S345 symposium « Origins: from the protosun to the first steps of life »,

b) in Vietnam in march 2019, just before the conference « Search for life : from early Earth to exoplanets » <https://icisequynhon.com/conferences/2019/search-for-life/>

Lectures of all these TS are recorded and are available on the « Online courses in astrobiology

In addition to these 4 activities we have developed collaboration with:

a) the **Activity Working Groups of the European Astrobiology Institute:** <https://europeanastrobiology.eu/forum-1.html> and more precisely with the European astrobiology Campus and Education WG with whom we organize events in common,

b) the **NASE Network for Astronomy School Education** www.naseprogram.org which recently programmed a workshop on Astrobiology

c) the very new **IAU Office for Education** with whom we plan to develop a program of short astrobiology videos for 16-20 years old people in as many languages as possible