



austrijski kulturni forum<sup>sar</sup>

DAADCONNECT2020



Cultural Collisions Bosnia – Symposium 2020/2021

# PAST, PRESENT AND FUTURE OF UNIVERSE

## SCIENCE&ART - CONNECTING PEOPLE

Jadranko Batista<sup>1</sup>, Daniela Brill<sup>2</sup>, Azra Gazibegović Busuladžić<sup>3</sup>, Nikola Godinović<sup>4</sup>,  
Mirza Hadzimehmedović<sup>5</sup>, Michael Hoch<sup>6</sup>, Ivica Puljak<sup>4</sup>, Nemanja Rakić<sup>7</sup>

<sup>1</sup>University of Mostar, Mostar, Bosnia and Herzegovina

<sup>2</sup>Master, Science & Art, University Applied Arts Vienna, Austria

<sup>3</sup>University of Sarajevo, Sarajevo, Bosnia and Herzegovina

<sup>4</sup>University of Split, Split, Croatia

<sup>5</sup>University of Tuzla, Tuzla, Bosnia and Herzegovina

<sup>6</sup>CERN - European Organization for Nuclear Research, Geneva, Switzerland

<sup>7</sup>University of Banja Luka, Banja Luka, Bosnia and Herzegovina

Exhibition and Public Events WG - IPPGOG December 2020

# Objectives

- ▶ Demonstrate how **science and art enables** connecting people
- ▶ **Engage, network and inspire** all generations, particularly **young people**
- ▶ Stimulate **curiosity on science**; foster **critical & creative thinking** process; engage in **science** via **art practice**
- ▶ Network between local scientists, artists, educators with real people involved in the international arts
- ▶ **Big Science** experiments such as those at CERN, gravitational waves interferometers, space telescopes
- ▶ **Sustainability: Transfer the knowledge, materials and tools** to local partners

# Connect teams from all over B&H

- ▶ Find and engage with at least **4 teams** in **4 towns**: Sarajevo, Banja Luka, Tuzla and Mostar
- ▶ Every team consists of at least:
  - One teacher
  - One scientist
  - One local artist
  - Students
- ▶ Open a possibility for other teams from any other place in Bosnia and Herzegovina to join
- ▶ **Duration**: from November 2020 until May 2021



# Format and schedule

- ▶ Send **scientific posters** to be installed in **each of 4 locations**, posters will stay permanently
- ▶ **Kick-off online Symposium – 6-7 Nov 2020**
  - **Introduction** of local teams participating - teachers, students, scientists, artists
  - Presentation of **scientific topics** (beginning, evolution, composition, future of Universe)
  - Introduction in the **art practice** on scientific topics by an collaborative artist
- ▶ **Goal:** inspire teams to work on these topics the following months to create an **artistic video** in which students present their dialogue with these topics
  - The target audience are young students – similar age of participating students
  - Produce a “*How was it made*” video as well
- ▶ **Mentoring, discussions between teams**
  - December/2020 – March/2021, **online sessions** between teams and organisers
  - All-participants informal meetings
- ▶ **Closing Symposium – April/May 2021:**
  - Presentation of digital artworks
  - Contest with awards



# Posters

## Big Bang The Origin of Everything

Diagram illustrating the expansion of the universe from the Big Bang, showing the progression from a single point to the formation of matter and energy.

## Standard Model Particles & Interactions

Diagram illustrating the Standard Model of particle physics, showing the classification of particles (Quarks, Leptons, Force carriers) and their interactions.

Equation:  $E = mc^2$

## CERN Largest Particle Physics Laboratory

Collage of images related to CERN, including the LHC tunnel, particle detectors, and a world map.

## CMS Compact Muon Solenoid experiment at CERN

3D cutaway diagram of the CMS detector, showing its internal structure and components.

Aerial view of the LIGO and Virgo gravitational wave observatories, showing the long interferometer arms.

Gravitational wave signal plots showing strain over time for LIGO Hanford and Livingston data. Includes a map of the LIGO-Virgo network.

Cosmic Microwave Background (CMB) fluctuation map, showing the distribution of matter and energy in the early universe.

Image of a glowing, fiery celestial body, possibly a protostar or a young star.

Image of a colorful nebula, showing the complex structures of interstellar gas and dust.

Image of the Pillars of Creation in the Eagle Nebula, showing the towering columns of interstellar dust and gas.

Image of a glowing ring-shaped nebula, possibly the Ring Nebula (M57).

Image of a complex, multi-colored nebula, showing intricate patterns of gas and dust.

Image of a spiral galaxy, showing the characteristic winding arms of stars and dust.

Image of a starry field with a constellation overlay, showing the arrangement of stars in the night sky.

Image of Earth from space, showing the blue and white colors of the planet.

Image of a star cluster, showing a group of stars of various colors and sizes.

Image of a galaxy with a bright core, possibly a spiral or elliptical galaxy.

Image of a nebula with a bright central source, showing the interaction of light and matter.

Image of a nebula with a complex structure, showing the intricate details of the gas and dust.

Image of a galaxy with a bright core, showing the central region of the galaxy.

Image of a starry field with a constellation overlay, showing the arrangement of stars in the night sky.



Cultural Collisions Bosnia and Herzegovina

# PAST, PRESENT & FUTURE OF THE UNIVERSE

6<sup>th</sup>, 7<sup>th</sup> November 2020: Kick Off online symposium

November 2020 till May 2021

## Cultural Collisions - Bosnia and Herzegovina

6-7 November 2020

Europe/Zagreb timezone



Overview

Timetable

Registration

Participant List

ZOOM link

## PAST, PRESENT AND FUTURE OF THE UNIVERSE

### SCIENCE & ART CONNECTING PEOPLE

Inspiring teams of young people to work on **scientific topics** for several months supervised by scientists and artists to create **artistic videos** or **digital artworks** that illustrate their interdisciplinary **dialogue**. The **target audience** for these digital artworks are other young students, of similar age, as well as members of the general public.

supported by: [Austrian Cultural Forum Sarajevo](#), [ORIGIN](#), [DAADconnect2020](#)

Sessions Video recorded :

6th Nov. morning session: <https://videos.cern.ch/record/2743874>

6th Nov. afternoon session: <https://videos.cern.ch/record/2743875>

7th Nov. brainstorming session: <https://videos.cern.ch/record/2743876>

## Cultural Collisions Bosnia and Herzegovina

November 2020 - May 2021

### PROŠLOST, SADAŠNJOST I BUDUĆNOST SVEMIRA

#### Topics:

Veliki prasak i rani svemir  
Evolucija svemira  
Crne rupe i gravitacijski valovi  
Kraj Zemlje, Sunca i svemira  
Fizika i umjetnost  
Popularizacija znanosti

#### Raspored

6. i 7. Novembar 2020: Uvodni simpozij (online)  
Novembar 2020 - April 2021: Rad u timovima uz pomoć mentora  
Maj 2021: Završni simpozij - završna izložba i prezentacije, natjecanje i nagrade

#### Cilj

Inspirirati timove učenika u raznim gradovima u BiH da tijekom školske godine rade na znanstvenim temama koje bi obradili u digitalnom obliku i tako predstavili svoj interdisciplinarni dijalog. Timovima će tijekom cijelog procesa pomoći mentori - znanstvenici i umjetnici. Konačna publika za proizvedene digitalne sadržaje, koji će biti originalna umjetnička djela, su vršnjaci učenika iz timova.

#### Organizacija

Jadranko Batista (Mostar), Daniela Brill (Vienna/Bogota), Azra Gazibegović Busuladžić (Sarajevo), Saša Ceci (Zagreb), Nikola Godinović (Split), Admir Greljo (Bern), Mirza Hadžimehmedović (Tuzla), Martin Hendry (Glasgow), Michael Hoch (Vienna/ CERN), Sabine Kernthaller (Vienna/ Sarajevo), Predrag Milenović (Beograd), Tijana Prodanović (Novi Sad), Ivica Puljak (Split), Nemanja Rakić (Banja Luka)



for registration and more information:

<https://indico.cern.ch/event/970862/>

SCIENCE & ART CONNECTING PEOPLE



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## Cultural Collisions Bosnia and Herzegovina

November 2020 - May 2021

### PAST, PRESENT & FUTURE OF THE UNIVERSE

#### Topics:

The Big Bang and Early Universe  
The Evolution of the Universe  
Black Holes and Gravitational Waves  
The End of the Earth, the Sun and the Universe  
Physics and Art  
Science Communication

#### Schedule

6<sup>th</sup>, 7<sup>th</sup> November 2020: Kick Off online symposium  
November 2020 to May 2021: Work in teams with help from mentors  
May 2020; Closing Symposium: final exhibition and presentation, contest and awards

#### Goal

Inspire teams in each city to work on scientific topics during the year to create digital artworks in which students present their interdisciplinary dialogue. The participants will be supervised by scientists and artists during the whole process. The target audience for these digital artworks are other young students, similar age.

#### Organisation

Jadranko Batista (Mostar), Daniela Brill (Vienna/Bogota), Azra Gazibegović Busuladžić (Sarajevo), Saša Ceci (Zagreb), Nikola Godinović (Split), Admir Greljo (Bern), Mirza Hadžimehmedović (Tuzla), Martin Hendry (Glasgow), Michael Hoch (Vienna/ CERN), Sabine Kernthaller (Vienna/ Sarajevo), Predrag Milenović (Beograd), Tijana Prodanović (Novi Sad), Ivica Puljak (Split), Nemanja Rakić (Banja Luka)



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SCIENCE & ART CONNECTING PEOPLE



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# Cultural Collisions Bosnia and Herzegovina

## PAST, PRESENT & FUTURE OF THE UNIVERSE

6<sup>th</sup>, 7<sup>th</sup> November 2020: Kick Off online symposium

November 2020 till May 2021

Friday	
09:00	Introduction and Welcome
	Austrian Cultural Forum in Sarajevo
	Prvi tri minute (First three minutes)
	Sljedećih 14 milijardi godina (Next 14 billion years)
10:00	Black holes in the Universe
	Suratomica
11:00	Lunch break
15:00	Iskustva u znanstvenoj komunikaciji (Science communication experience)
	Kraj: Zemlje, Sunca i svemira (The end: of the Earth, the Sun and the Universe)
16:00	art at CMS - ORIGIN
	Fizika i umjetnost (Physics and Art)

Saturday	
09:00	Group workshops
10:00	
11:00	
12:00	Lunch break
15:00	Team report: Sarajevo
	Team report: Banja Luka
	Team report: Mostar
16:00	Team report: Tuzla
	Closing discussion: all

17:00

18:00 - 21:00



# Participants










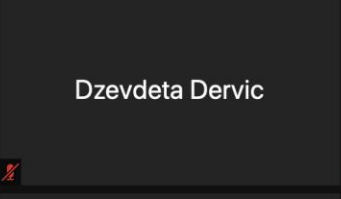
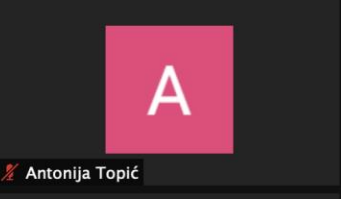
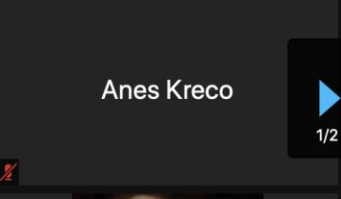
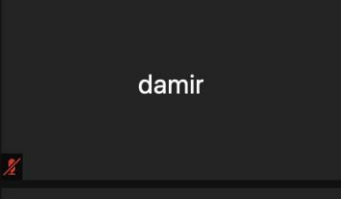
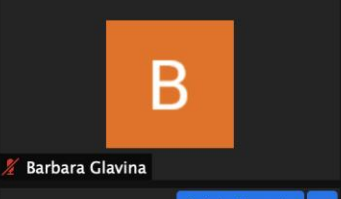
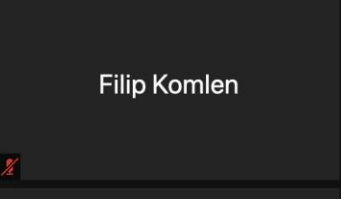

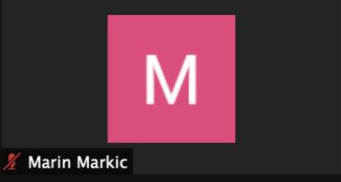
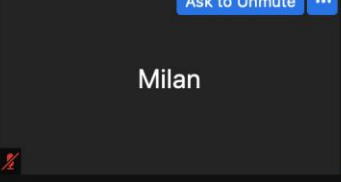
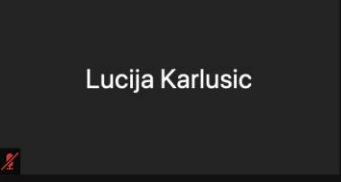
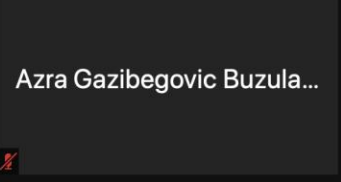
## Participant List

132 participants

Zoom Webinar

Recording

View

First Name	Video Feed	Name
Adla		michael hoch
Admir		ivica.puljak@fesb.hr
Admir		Jadranko Batista
Ahira		Mirza Hadzimehedovic
Ahmed		Azra PPedljic
Ajla		Dusko Mazalica
Aldin		Amina Sarhatlic
Alem		Andreana Kovačević Čurić
		Armin Filipović
		Dzevdeta Dervic
		Antonija Topić
		Anes Kreco
		damir
		Barbara Glavina
		Filip Komlen
		Ivana Pašić
		Marin Markic
		Milan
		Lucija Karlusic
		Azra Gazibegovic Buzula...

# Two new group joined

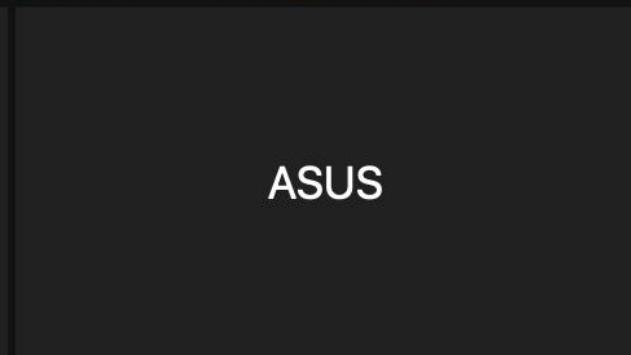
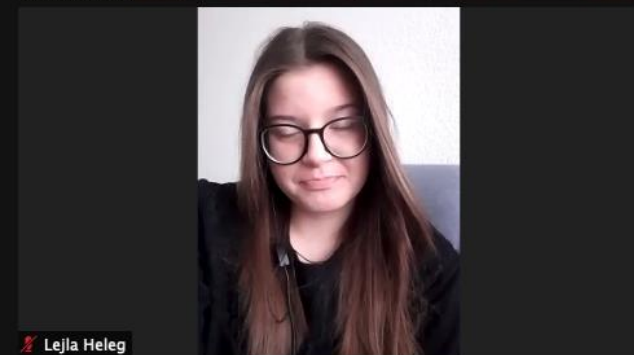
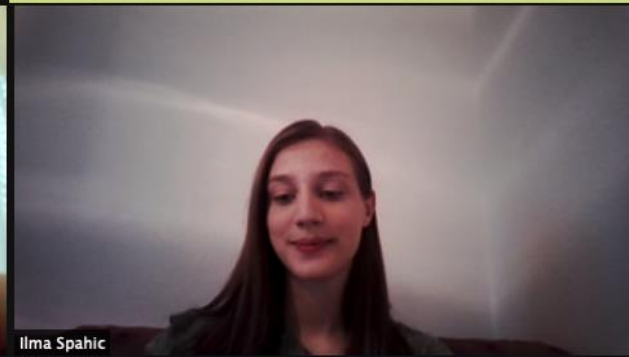
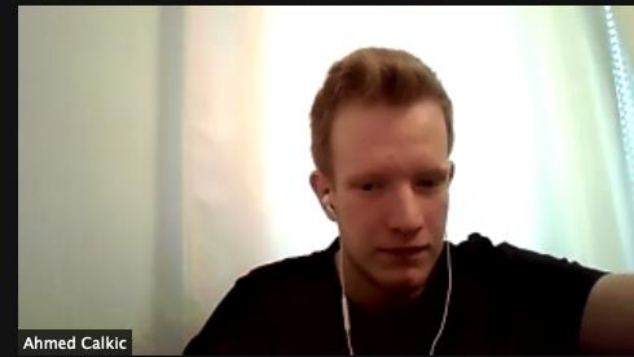
GRADAČAC





# Two new group joined

ZENICA



# Conclusions

- ▶ Excellent kick-off of the project
  - High and active participation
- ▶ Enthusiasm at a very high level
  - Particularly among students
- ▶ Next steps
  - Today: organisation meeting
  - Next all-participants meeting: Saturday **Dec 14<sup>th</sup>**
  - Participation in CERN-B&H cooperation signing event on **Dec 16<sup>th</sup>**
    - Virtual visit to CMS
  - Weekly interaction with teams