

Welcome to PAERI 2024 !

Prof. Jean-Paul Kneib
Director of Lab. of Astrophysics
Academic Director of EPFL Space Center
Scientific Lead of SKACH - hosting this conference
Co-curator of Cosmos Archeology





SKACH



SKAO



SKACH
is the Swiss consortium for SKAO

skach.org

#SKACH

SKACH was created in 2021
just before Switzerland joined the SKAO in 2022

Now SKACH gathers more than 100 scientists across 10 institutes



SKACH Board

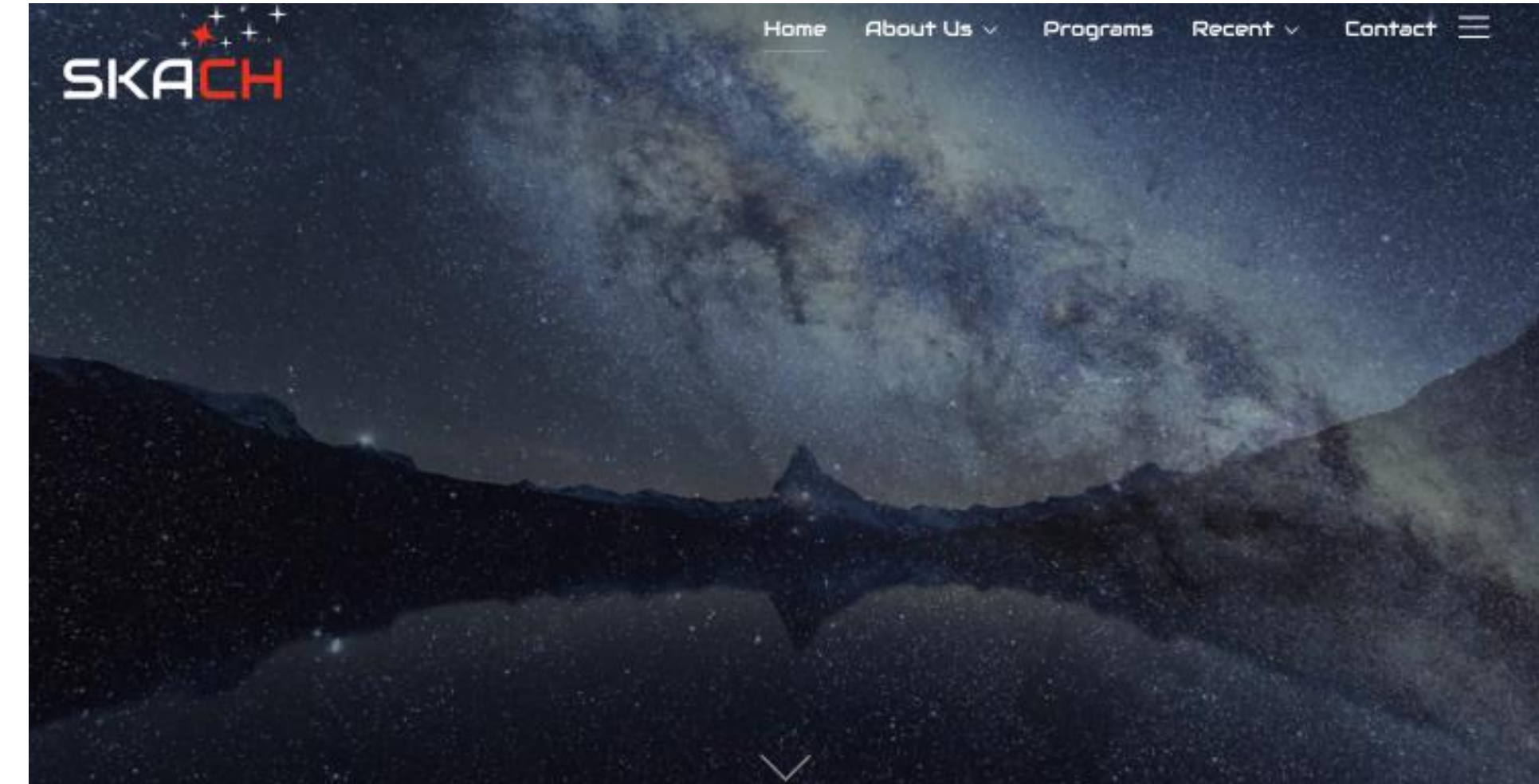
SKACH Outreach and Communications 2021-2023 **Tanya Petersen**



← Developed the brand



→ Established media assets



← SKACH at WEF, Davos 2022

→ Building Switzerland's astro community



News



Swiss astronaut welcomes participants to first Cosmology in the Alps

Sciena - Swiss Science Today
2,679 posts

SCiENA today

Sciena - Swiss Science Today
@Sciena_ch

Featuring the best #science, #research and #technology news from federal institutions @ETH_en @EPFL_en @psich_en @WSL_research @EawagResearch

Media & News Company | sciena.ch | Joined June 2018

745 Following 2,416 Followers

Followed by EPFL Center for Quantum Science & Engineering, you follow

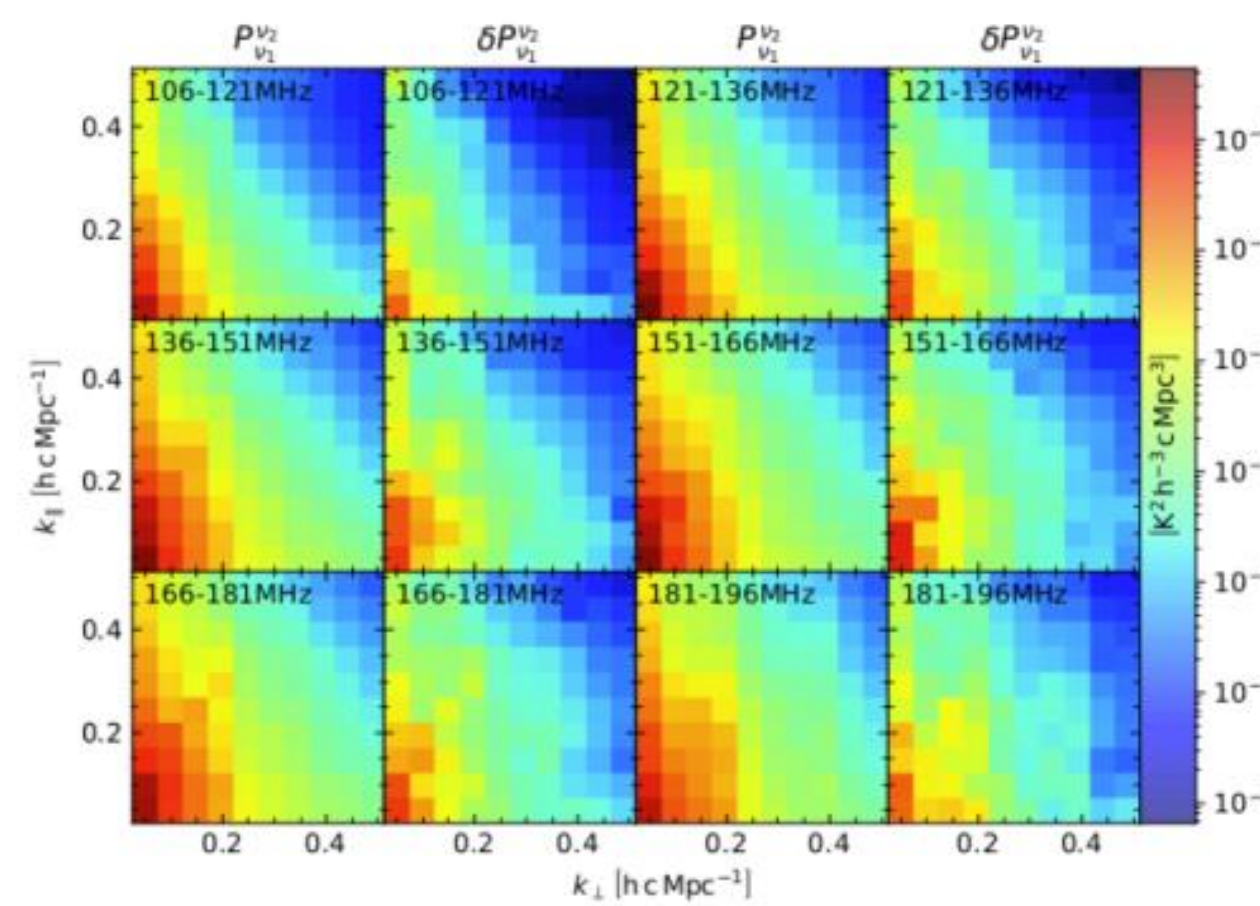
Posts Replies Media

Sciena - Swiss Science Today reposted
EPFL @EPFL_en · Jan 19

With its secretariat hosted at EPFL, the Square Kilometre Array (SKA) consortium is celebrating membership of a global project to develop the largest radio telescope in the world.



Swiss scientists win time on top European supercomputer



SKACH Team successful in Science Data Challenge 3a



Swiss tech helping uncover the origins of the universe

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news

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European Supercomputer Aids Heidelberg Astrophysics

9 January 2024

Astronomy/Space | Computer Science

Heidelberg researchers receive computing time for simulating the behaviour of cosmic gases and plasmas during star formation

A Swiss-German research team hopes to unlock the secrets of star formation using Europe's fastest computer - the LUMI-G supercomputer in Kajaani (Finland) run by an international consortium. The researchers have received computing time on

University of Basel
Department of Mathematics and Computer Science

Swiss tech helping uncover the origins of the universe

News > EPFL

secretariat hosted at EPFL, the Square Kilometer Array Switzerland is celebrating two years' membership of a global project to

MIRAGE National | World | Local | Business | Technology | Science | Life | Timeline

LATEST rra Funding Boosts Fire Ant Eradication Efforts Exhibition of Draft community participation plan School Holidays

MIGROS BANK

Science 19 JAN 2024 5:02 PM AEDT

Swiss tech helping uncover origins of universe

SKACH Outreach and Communications 2023-2024 **Tanya Petersen**



Building External Outreach and Communications in Switzerland



Making Waves Podcast:

Check presentation of Tanya Petersen



- First episode complete
- Second episode currently being recorded
- Recently gathered content in South Africa
- Funding for three further episodes
- Initially in French
- Will apply for Agora rolling call funding to produce additional episodes and work on German and Italian language versions

Public Events



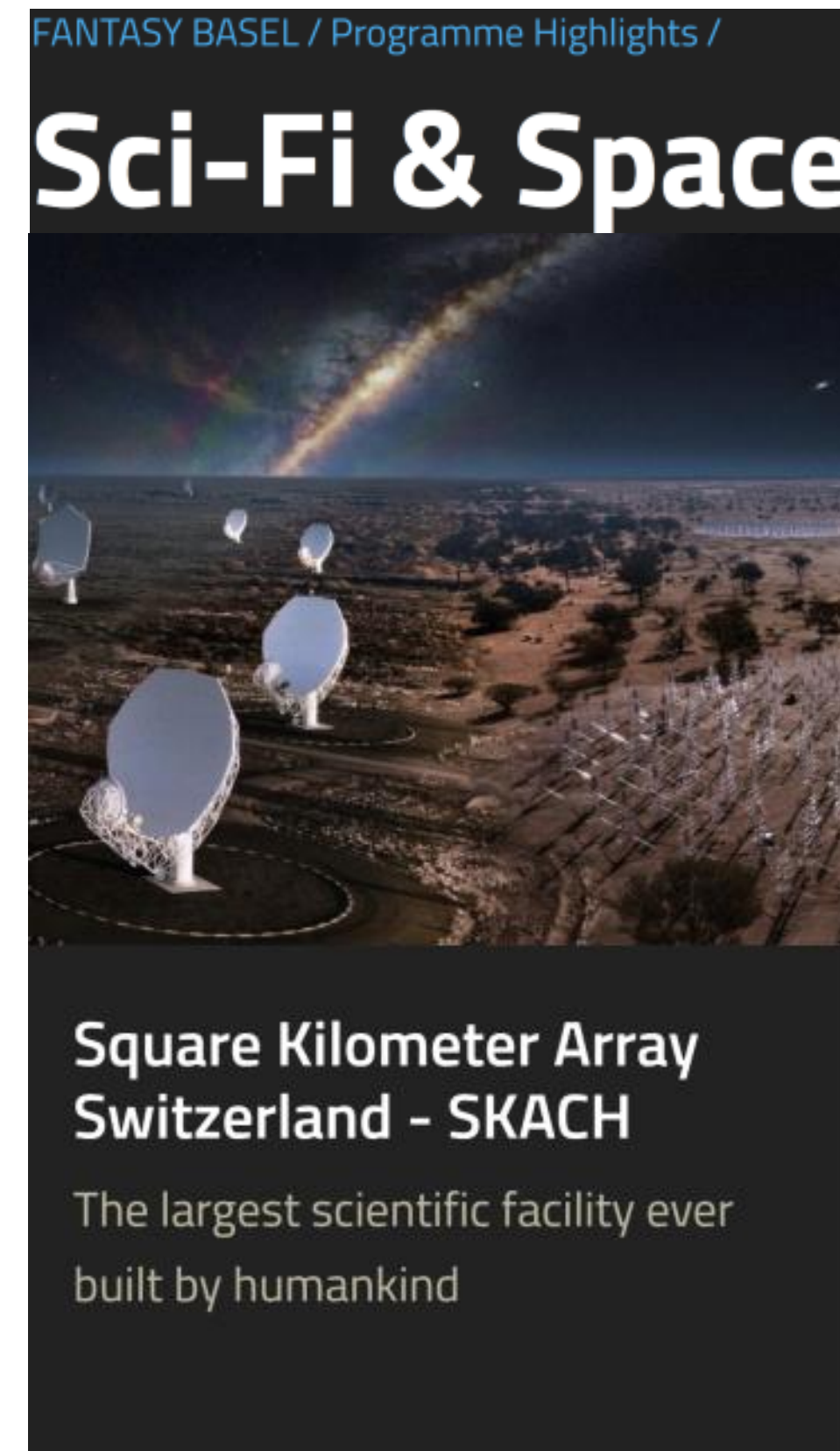
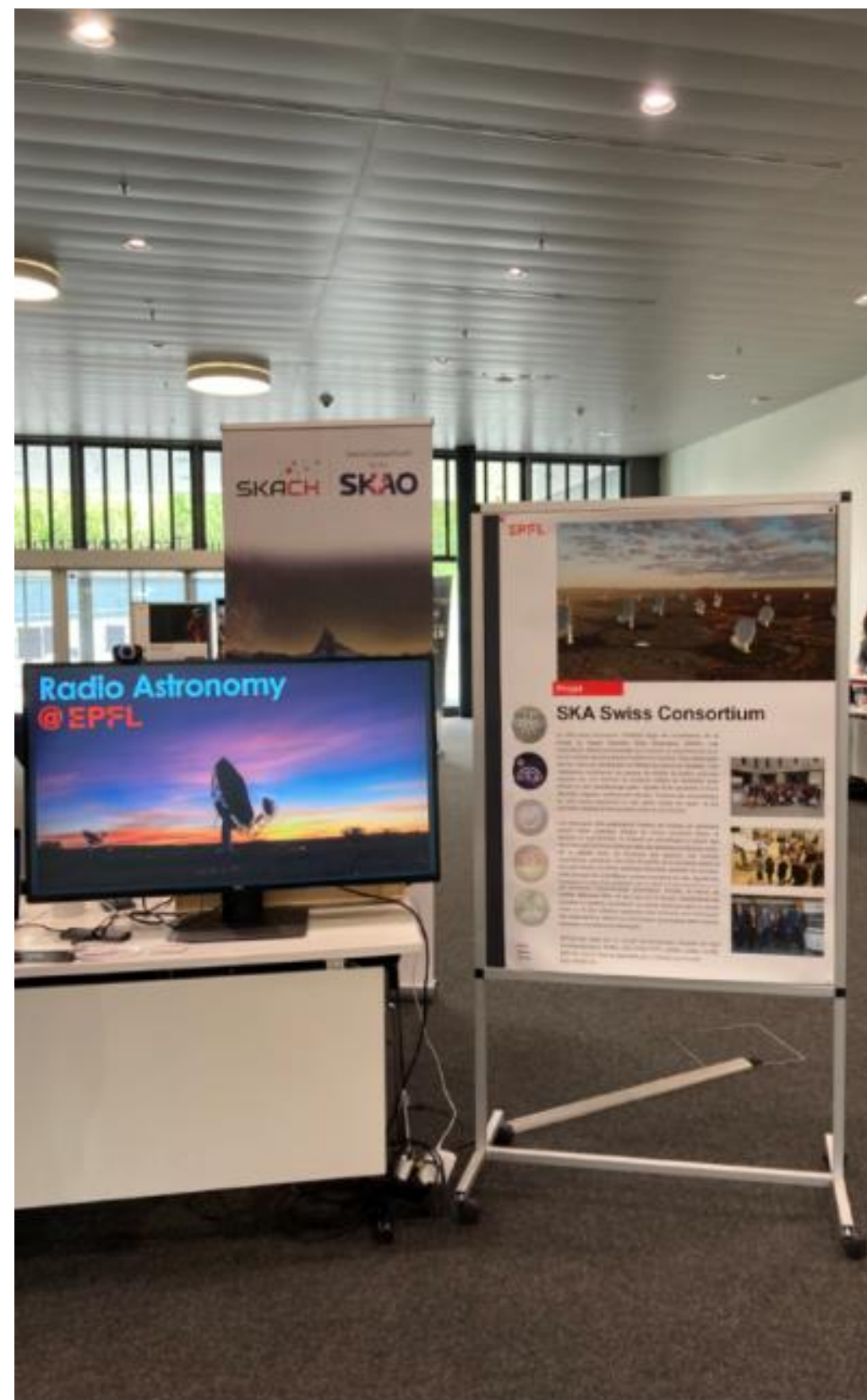
EXPO

OPEN DAYS

Fantasy Basel

Public Conferences

Arcana in Morges





Kenderdine **Kneib**

EPFL Pavilions
Sept 2022-Feb 2023
15'000 visitors

Cosmos Archaeology
宇宙考古

Exploring the Universe Through Art & Science
探索时空的科学艺术之旅

2024
5.18 •
|
11.17

瑞士洛桑联邦理工学院
EPFL Pavilions
Data Faced Institute of Technology, Lausanne

上海天文馆 上海科技馆
Shanghai Astronomy Museum
Branch of Natural Science & Technology Museum

策展: Sarah Kenderdine Jean-Paul Kneib 范芷琪 Iris Long

上海天文馆 B1 新展厅 B1 Temporary Exhibition Hall, Shanghai Astronomy Museum



Shanghai Astronomy Museum

May-Nov 2024
800 visitors/day
~120'000 visitors

Guandong Science Museum

Jan-June 2025

National Museum Beijing

July-Oct 2025

Sidney University Museum

Nov 2025-March 2026

Cosmos Archaeology

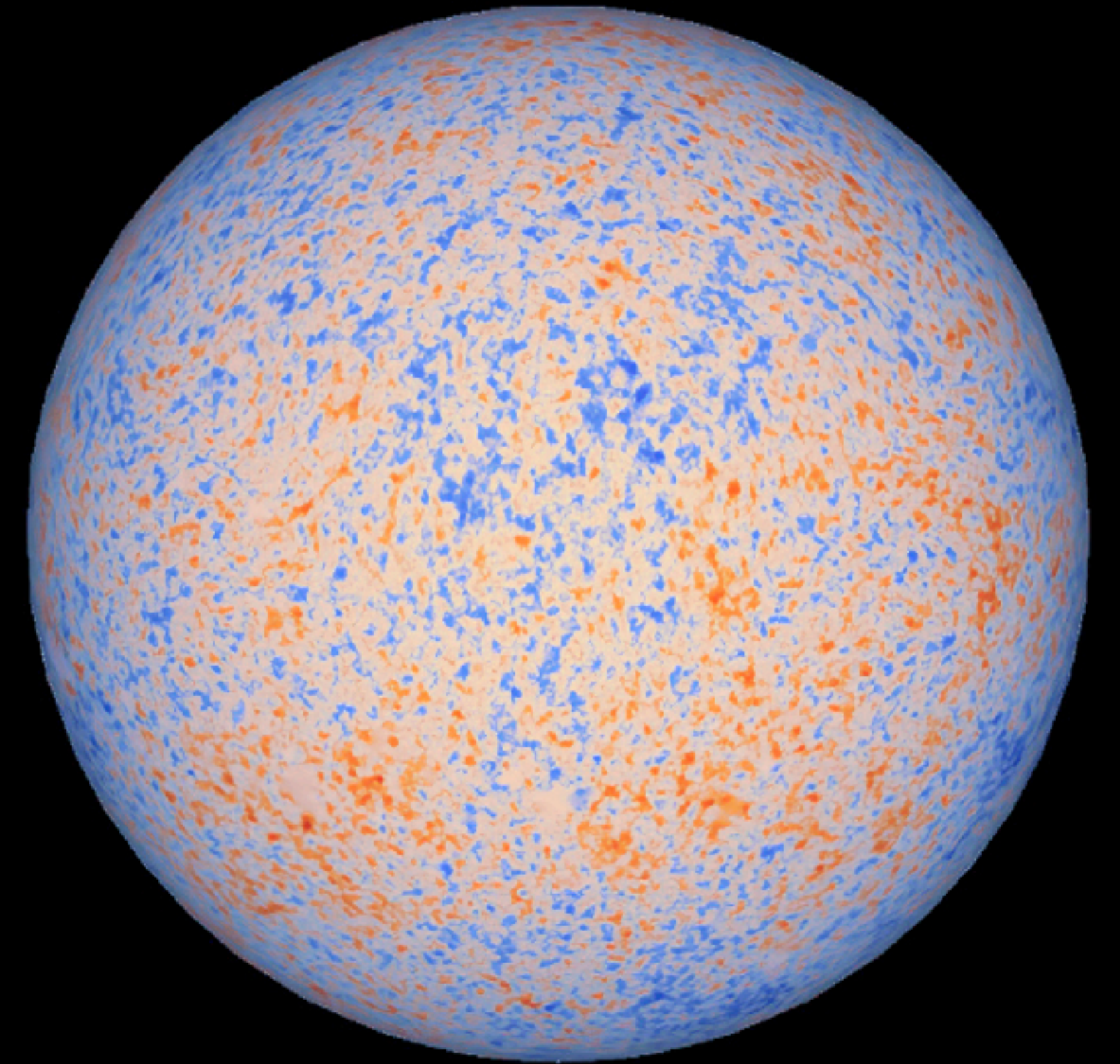
Exploration of Time and Space

Earth



Diameter: 12'742 km
Or 0,04 light-second

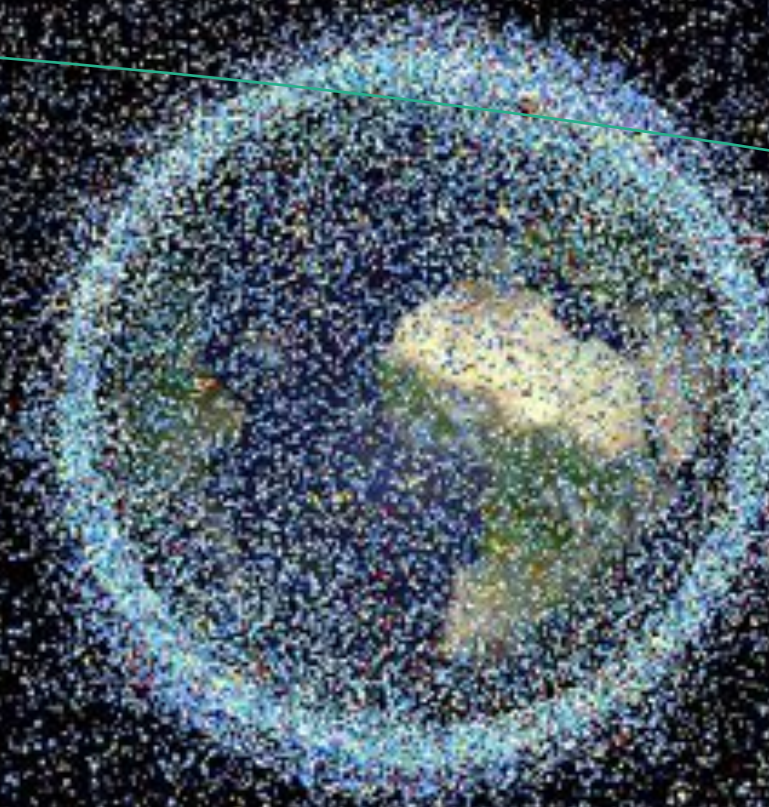
Observable Universe



Diameter: $\sim 10^{24}$ km
Or 93 billion of light-year

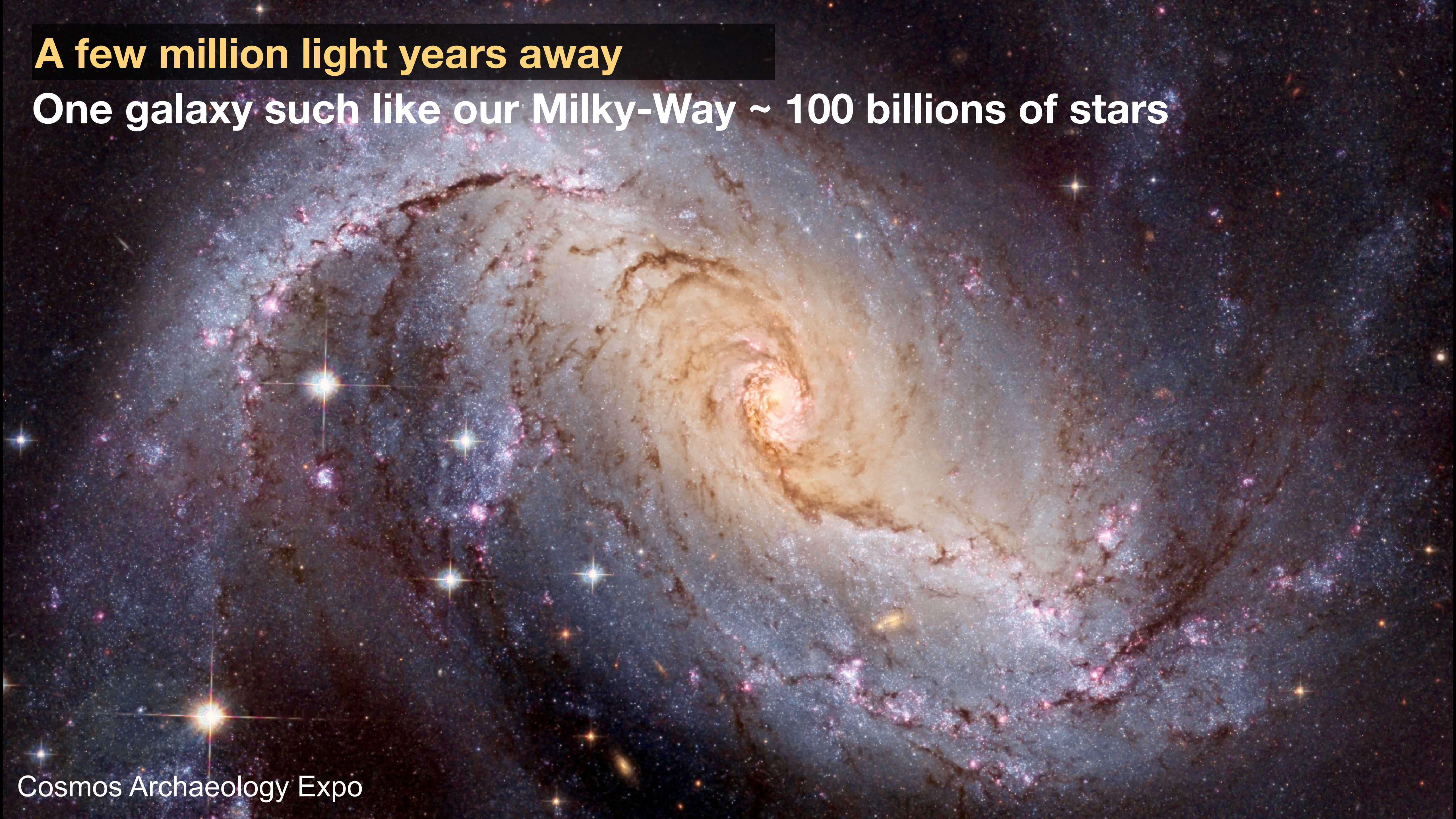
$\times 10^{20}$

Less than a fraction of 1 light-second away



A few million light years away

One galaxy such like our Milky-Way ~ 100 billions of stars



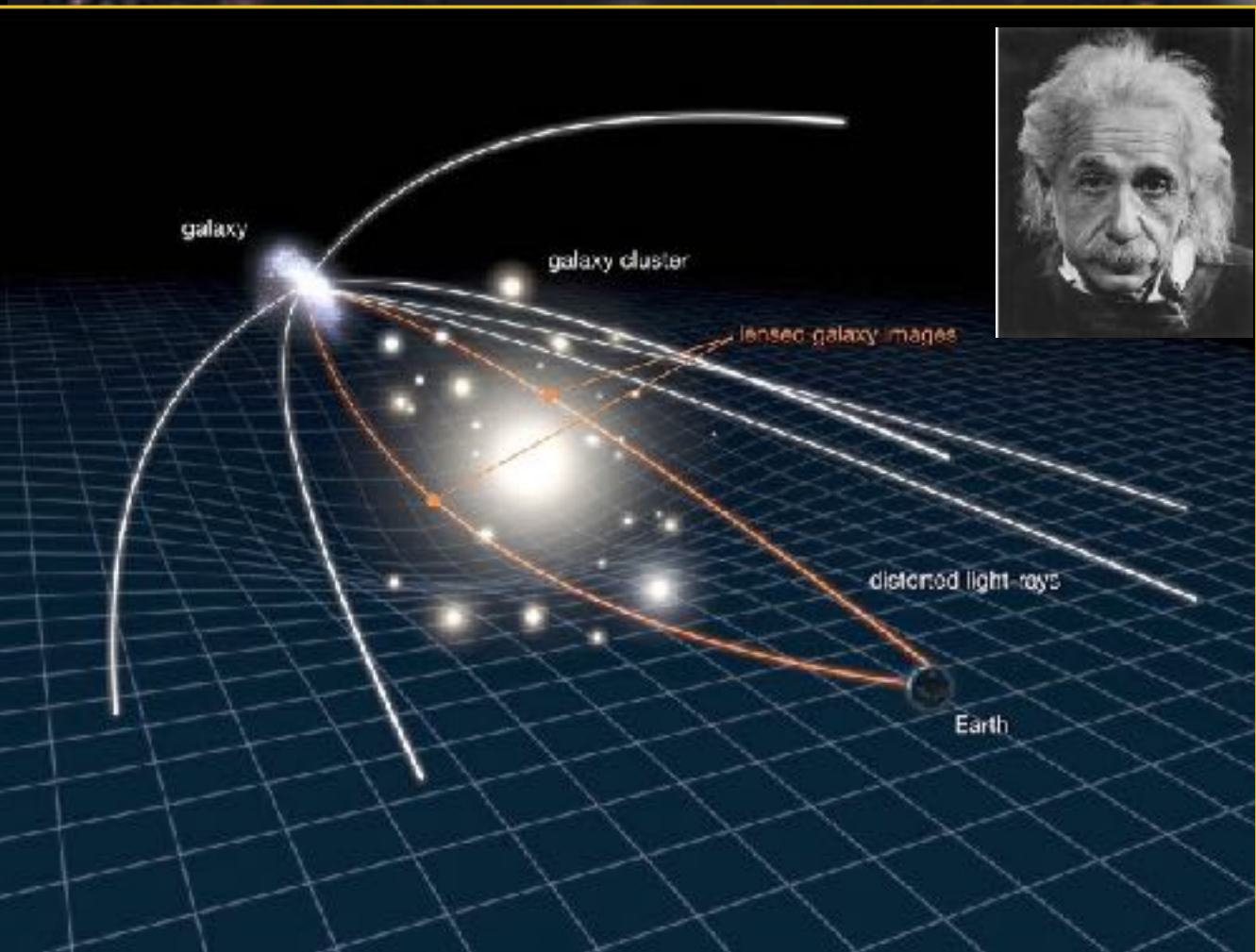
A few billion light years away

More than 200 billion of Galaxies over the celestial sphere

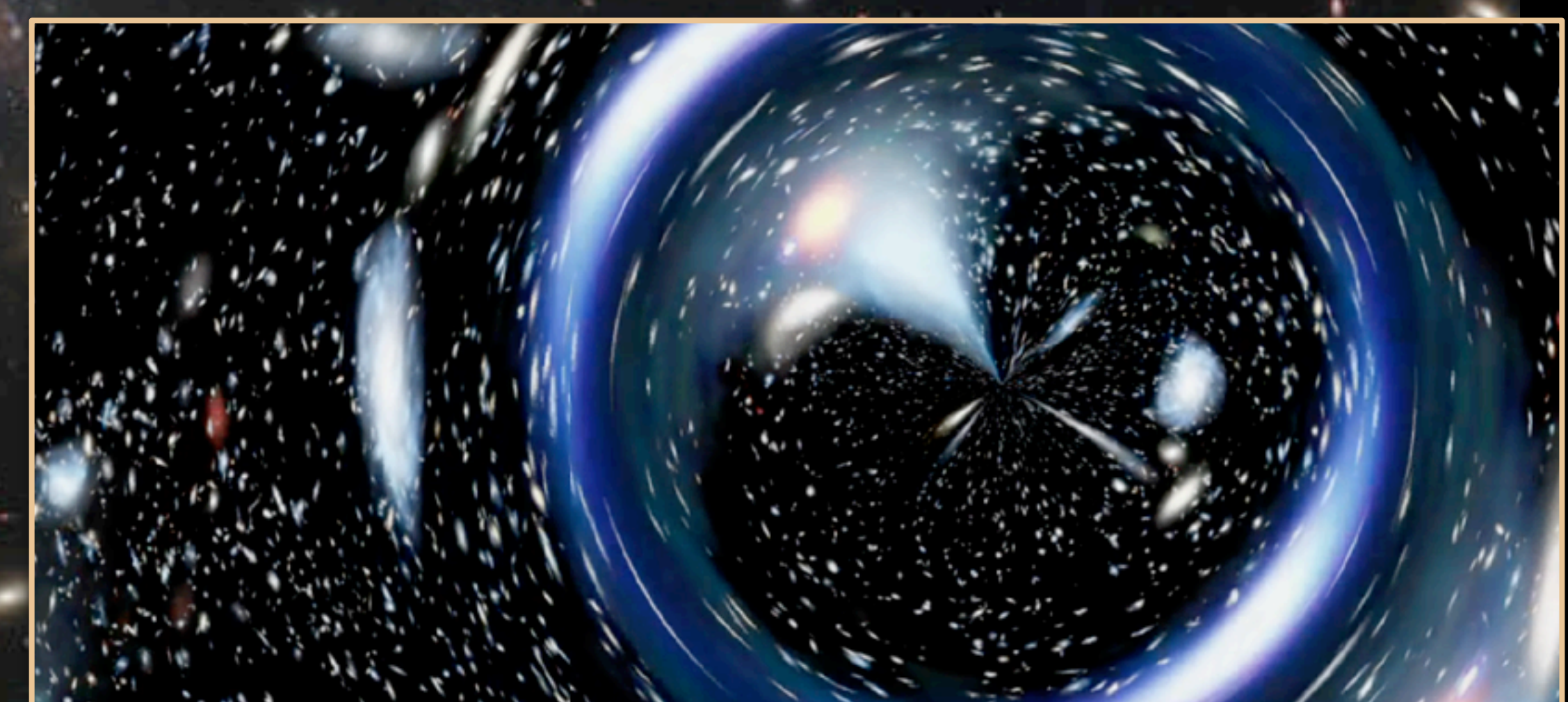


Gravity distorts space time

thousands massive Cluster of galaxies



Gravitational lensing: Prediction of Einstein's gravity theory



Archaeology of Light Movie in 2D and 3D

Going through our Universe and back!





Science Communication is Key - enjoy PAERI 2024

