



NEWS



European Commission

H2020-MSCA-RISE-2016 – Grant Agreement N° 734303



HZDR



POLITECNICO MILANO 1863

EGO - Virgo



UNIVERSITÀ DI PISA



Stockholm University



UNIVERSITÀ DEGLI STUDI DI GENOVA



SAPIENZA UNIVERSITÀ DI ROMA



Dissemination and Outreach

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WP-9 Co-Leaders



Dissemination

❖ Internal dissemination

- NEWS web site (internal section)
- Web-based document repository
- Internal workshops
- Meetings

❖ External dissemination

- NEWS web site (public section)
- Conferences - Workshops
- Contacts with industries
- Scientific publications
- Summer Schools

NEWS web site

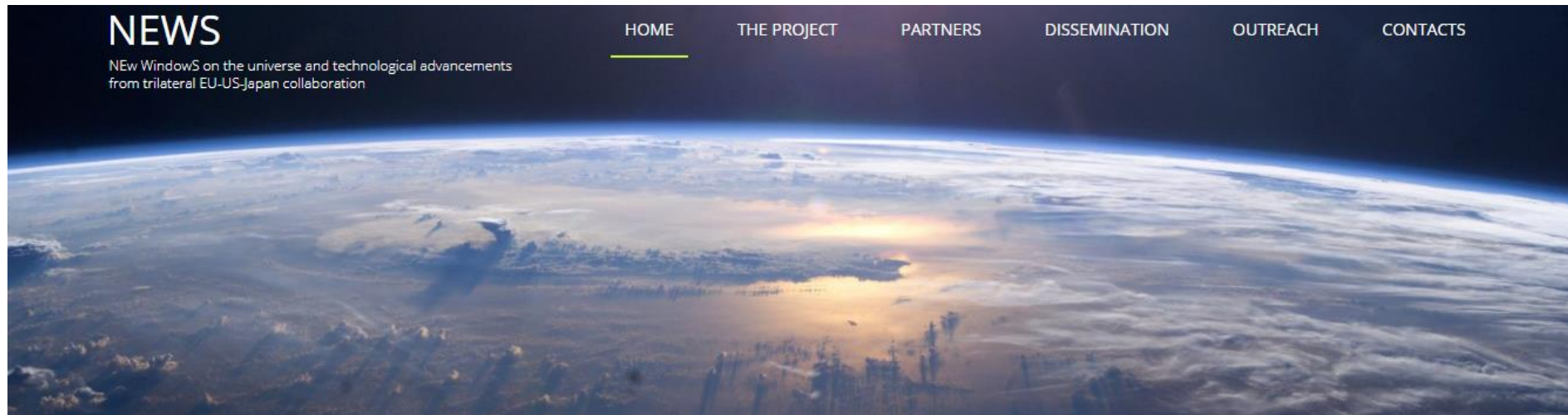
❖ Internal section

- Deliverables
- Meetings
- Reports
- Internal organization (mailing lists, templates, ...)

❖ External section

- Description of the project
- Scientific publications and conference presentations and proceedings
- Organized events
- Beneficiaries and Partners information
- Contacts and organization of the project

NEWS Web Site (work in progress)



NEWS promotes the collaboration between European, US and Japanese research institutions
in some key areas of fundamental physics

NEWS is a MSCA-RISE-2016 Project

Courtesy of Massimiliano Razzano, Unipi

The web site will be maintained for at least one year following the end of the project

Scientific Publications

- ❖ All publications will be available in open access repository (arXiv and others)
- ❖ Widely accepted social networks will be used (Facebook, Twitter, LinkedIn)
- ❖ The most relevant journals on which we publish our results:
 - Astronomy and Astrophysics, Astrophysical Journal, Astrophysical Journal Letters, Monthly Notices of the Royal Astronomical Society
 - Physical Review D, Physical Review Letters, Science
 - Journal of Cosmology and Astroparticle Physics, Classical and Quantum Gravity
 - IEEE Transactions on Nuclear Science/on Applied Superconductivity/on Cloud Computing/on Electron Devices
 - Nuclear Instruments and Methods A, Journal of Real-Time Image Processing
 - Superconductor Science and Technology, Material Letters, Applied Physics Letters
 - Journal of Instrumentation

Summer Schools

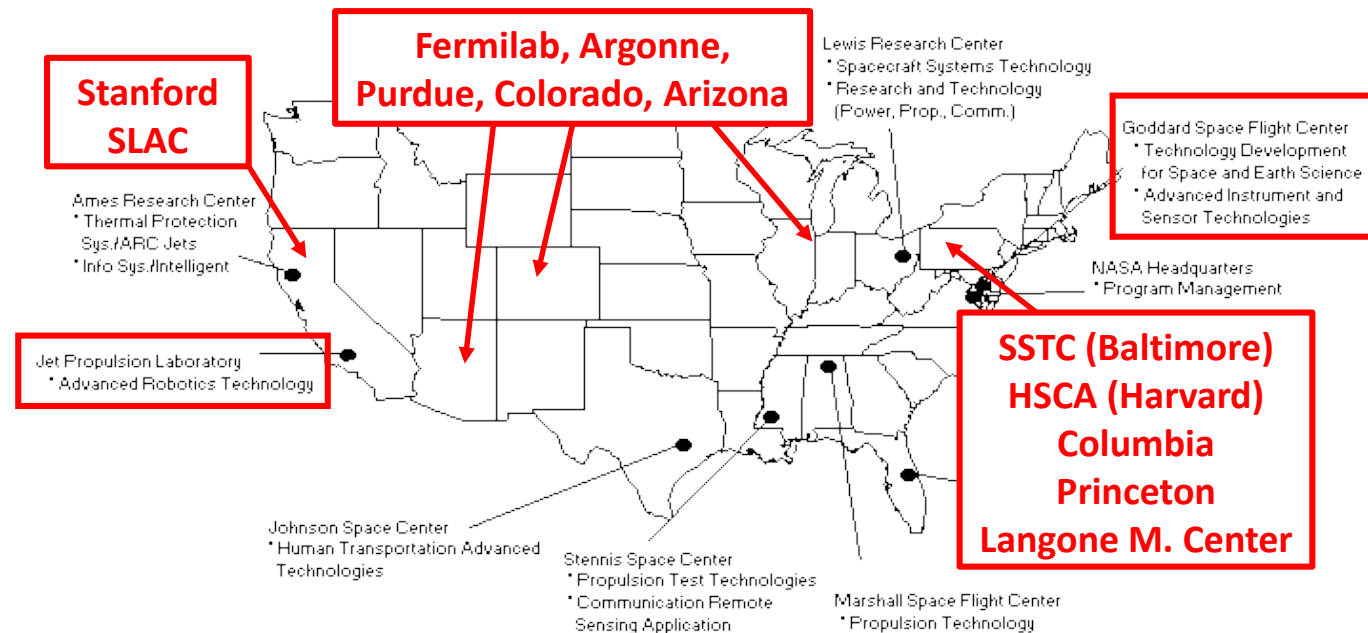
❖ "Summer School at FNAL and other US Laboratories"

- Complicated history, includes 9-week internship programs financed by INFN, DOE, NSF, ASI, CAIF accessible to Master students of all European Universities
- 6 ECTS credits (CFU in the Italian system) upon completion of final exam at UNIPI

❖ Seminars on technology applied to particle physics research given by INFN engineers (UNIPI July 25)

❖ Trainings on NEWS research activities in US

❖ Opportunity to meet researches from US and non-academic Partners

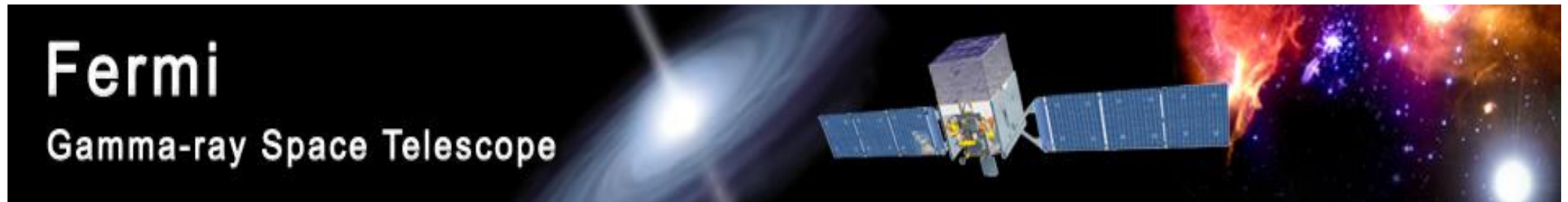


Outreach

- ❖ Promote European collaborative research and innovation
- ❖ Stimulate public awareness and understanding of science
- ❖ Engage young people to pursue careers in STEMs
- ❖ Integrate our activities with the most successful activities already in place in the US
- ❖ Outreach web site

Outreach - Astroparticle (Fermi-LAT & IXPE)

- ❖ Participate and **learn** from NASA successful activities to better engage the European public
 - Online web pages and brochures
 - Interactive applications with all-sky maps derived from Fermi observations
 - Videos on Fermi and gamma-ray astronomy
 - Role-playing games on design and management of space missions



Outreach - Astroparticle (Fermi-LAT & IXPE)

❖ FERMI Masterclass

- High school students exploring astroparticle physics in a full day activity
- Lessons giving basic insights about gamma astronomy and the FERMI-LAT telescope followed by the analysis of real data from FERMI-LAT experiment
- The participants discuss their results and findings with students from other schools



Outreach - Astroparticle (Fermi-LAT & IXPE)

❖ "Alternanza Scuola Lavoro"

- In the framework of Italian legislation about Education, high school students have to attend training programs in a work environment
- The Physics department and INFN Torino offered many students the opportunity to collaborate with scientists from the FERMI experiment
- Students were involved both in data quality monitoring and in the preparation of material for outreach and dissemination activities (slides, questionnaires).
They presented the material during a Fermi collaboration meeting



Outreach - Gravitational Wave Physics (Virgo-LIGO)

- ❖ Seminars on gravitational waves
- ❖ Guided tours of the European Gravitational Observatory (EGO) site and Virgo experiment for High School students and general public
- ❖ Nights dedicated to the observation of the sky with optical telescopes
- ❖ Link between NEWS web site and EGO web site
- ❖ Online newspaper "h - The Gravitational Voice"
 - The most significant NEWS achievements and results will be inserted
- ❖ EGO Outreach team (<http://public.virgo-gw.eu/about-us>)



Outreach - Gravitational Wave Physics (Virgo-LIGO)

- ❖ Participate in the event "Futuro Remoto" organized by the "City of Science" in Naples (expected 250,000 visitors)
- ❖ Participate in all INFN initiatives, including "Fisica a Vela" and "Fisica tra le Onde"
- ❖ Participate in the "Alternanza Scuola Lavoro" program
- ❖ Explain gravitational wave discovery to primary school children



Outreach - events

❖ **Workshop Day** (in coincidence with the annual NEWS General Meeting)

- Project researchers will hold seminars and lectures for university students and technical high school students
- The laboratories will be open for demonstrations
- Contacts with representatives of SMEs (Prisma, Clever, Impex)
 - Clever, as well as the other companies, will make strong efforts to interact with the general public and scientific communities by participating at organized conferences and open events in order to increase awareness of science and interest of students in related career opportunities and potential exploitation strategies

❖ **Open Day**

- European Researchers' Night - Night of Science
- All the laboratories will be open to the general public
- Posters and interactive computer simulations



Open Days (just few examples)

All Academic Institutions open their laboratories and organize demonstrations for the general public in coincidence with the European Researchers' Night

- ❖ **KTH** has an experimental program on cosmic rays for high school students organized in collaboration with The Stockholm House of Science
- ❖ **INFN** opens its laboratories in Italy to the general public (European Researchers' Night)
- ❖ **INFN National Laboratory** at Frascati organizes hands-on training in experimental sub-nuclear physics for high-school teachers
- ❖ **HZDR** opens its laboratories to the general public (each two years)
- ❖ **CNRS** organizes the event "fête de la science": workshops and conferences about the gravitational waves for high school students and general public
- ❖ **Unipg** organizes the Science Festival "Gubbio Scienza", from June 30th to July 7th

Conclusions

- ❖ Internal dissemination will favour the communication of all our scientific results among all the NEWS participant
- ❖ External dissemination will have a strong impact on the entire scientific community as well as on the young generations
- ❖ The communication strategy will benefit of the long-standing tradition in public outreach of all the research institutions involved in NEWS in order to give visibility to the project to many audiences, in particular high school students and general public
- ❖ The proposed activities will offer many opportunities to high school and university students to get in contact with researchers from academic as well as non-academic Institutions