

Summer Students at Fermilab and other US laboratories

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**UNIVERSITY OF PISA/FERMILAB/CAIF SUMMER SCHOOL
MASTER STUDENTS OF EUROPEAN UNIVERSITIES**
PHYSICS/APPLIED PHYSICS
ENGINEERING, MATERIALS SCIENCE, COMPUTING SCIENCE

ADMISSION

CV + RECOMMENDATION LETTERS + INTERVIEW + ENGLISH

ACTIVITY AT FERMILAB

AUGUST-SEPTEMBER (9 WEEKS)

TRAINING PROGRAM SUPERVISED BY ONE FERMILAB EMPLOYEE
MIDTERM REVIEW, FINAL REVIEW, WRITTEN REPORT

UNIVERSITY CREDITS

FINAL EXAM WITH A UNIVERSITY OF PISA COMMITTEE
AWARDS 6 ECTS CREDITS (6 CFU IN THE ITALIAN SYSTEM)

SPONSORS

INFN AND DEPARTMENT OF ENERGY
UNIVERSITY OF PISA AND SANT'ANNA SCHOOL (PISA)
ASI-CAIF FOR SPACE SCIENCE LABORATORIES
ZERO COST FOR THE STUDENT, ~9,000 \$/STUDENT FOR THE SPONSOR

FERMILAB IS USA'S PARTICLE PHYSICS AND ACCELERATOR LABORATORY

1750 EMPLOYEES, AND MANY MORE VISITING SCIENTISTS
AND ENGINEERS FROM ALL OVER THE WORLD

PARTICLE PHYSICS DIVISION

DETECTOR DEVELOPMENT AND FERMILAB EXPERIMENTS
COLLABORATION WITH CMS AT CERN LHC
SHORT/LONG BASELINE NEUTRINO EXPERIMENTS
THEORETICAL PHYSICS AND ASTROPHYSICS DEPARTMENT

ACCELERATOR DIVISION

DEVELOP NEW ACCELERATOR TECHNIQUES
PROVIDE PARTICLE BEAMS FOR FERMILAB EXPERIMENTS

TECHNICAL DIVISION

DEVELOP NEW TECHNOLOGIES FOR PARTICLE PHYSICS EXPERIMENTS

COMPUTING DIVISION

COMPUTING INFRASTRUCTURE FOR DATA HANDLING AND ANALYSIS

IDEAL ENVIRONMENT FOR STUDENTS' HANDS-ON TRAINING

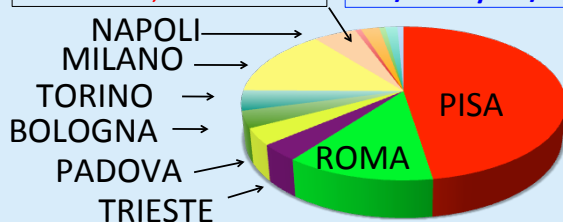
ONLY ONE COMMANDMENT

**THE BEST STUDENT
FOR
THE BEST TRAINING PROGRAM**

ALMOST 500 STUDENTS SINCE 1983

MESSINA, FIRENZE, ANCONA
LECCE, FERRARA, L'AQUILA, BARI
BRAZIL, CZECH REPUBLIC, ISRAEL,
POLAND, LITHUANIA

Years 2010-2017
209 students
112/97 Physics/Engineering



MANY EXTENDED COLLABORATION WITH MASTER & PHD

NEW COLLABORATION WITH THE UNIVERSITY OF OXFORD

3 FERMILAB SUMMER
STUDENTS HOSTED AT THE
DEPARTMENT OF PHYSICS
FOR A 4-WEEK
PRE-TRAINING
IN NEUTRINO PHYSICS
FOLLOWED BY THE
9-WEEK INTERNSHIP
AT FERMILAB IN A
NEUTRINO EXPERIMENT

Neutrino Summer Student Program

Moving Knowledge

Organizing Committee:
Emanuela Barzi, Pisa; Anna Bellini, Pisa;
Giorgio Bellettini, Pisa;
Simone Donati, Pisa;
Luigi Marchese, Oxford;
Ian Shipsey, Oxford

**Nature made neutrinos oscillate into three flavours,
we make culture oscillate into three countries.**

Pisa university ↔ Oxford university ↔ CAIF

Apply by April 24, 2017



MUSE outreach program for University students



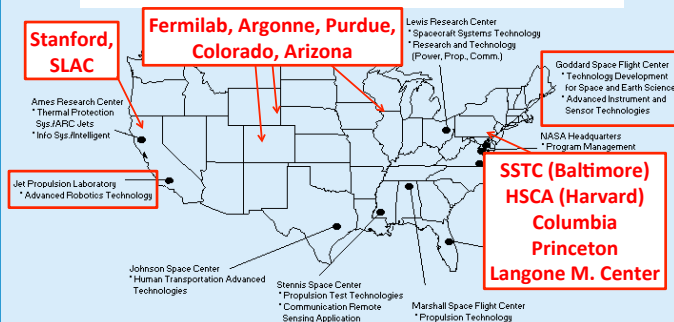
"The High Intensity Frontier at the Fermilab Muon Campus"

**SUMMER SCHOOL NOW PART
OF THE OUTREACH PROGRAM
OF TWO H2020-MSCA-RISE PROJECTS
COORDINATED BY INFN**

**"MUON CAMPUS IN US AND EUROPE
CONTRIBUTION" ("MUSE", GA 690835)**

**"NEW WINDOWS ON THE UNIVERSE AND
TECHNOLOGICAL ADVANCEMENTS FROM
TRILATERAL EU-US-JAPAN COLLABORATION"
("NEWS", GA 734303)**

INTERNSHIPS AT OTHER US LABORATORIES



26 SUMMER STUDENTS OUTSIDE FERMILAB IN 2010-2017
FINANCIAL SUPPORT FROM ASI, INFN, INFN, ISSNAF, CAIF