

# The Birth of MACRO

the Italian point of view  
starting from 1979  
(with the help of Giuseppe B.)

E. Iarocci LNF – INFN  
MACRO event - June 2025

**1979**

p-decay proposals:

**NUSEX** CERN-Frascati-Milano-Torino in a **garage of the Mont Blanc tunnel**  
**IMB** in a **deep underground mine**

Search in the Alps for a European underground Lab (E. Fiorini, K. Winter)  
The **Frejus** Lab 4,000 m<sup>3</sup> (10 x a Mont Blanc garage)

Zichichi's idea of the **Gran Sasso** Lab: 40,000 → 180,000 m<sup>3</sup>

**1981**

Zichichi at the Giant Underground Detector workshop in Rome  
(M. Conversi 10 kton detector)

**1982**

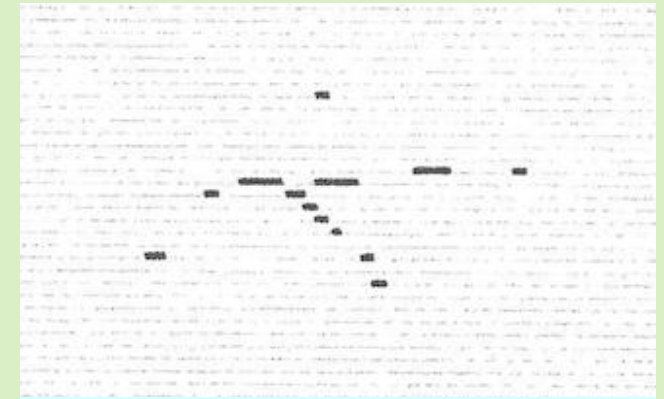
NUSEX and IMB start taking data

**The Italian Parliament approved a Law that created the GS Lab**

Zichichi presented the final project in Los Alamos

**The GS Lab construction 1982-87**

Frascati-Milano-Torino studies for kton p-decay detector



NUSEX p-decay candidate

**1983**

In January: **ICOMAN** workshop at Frascati  
International **COL**loquium on **MA**tter **N**on-conservation

Zichichi on the GS Lab

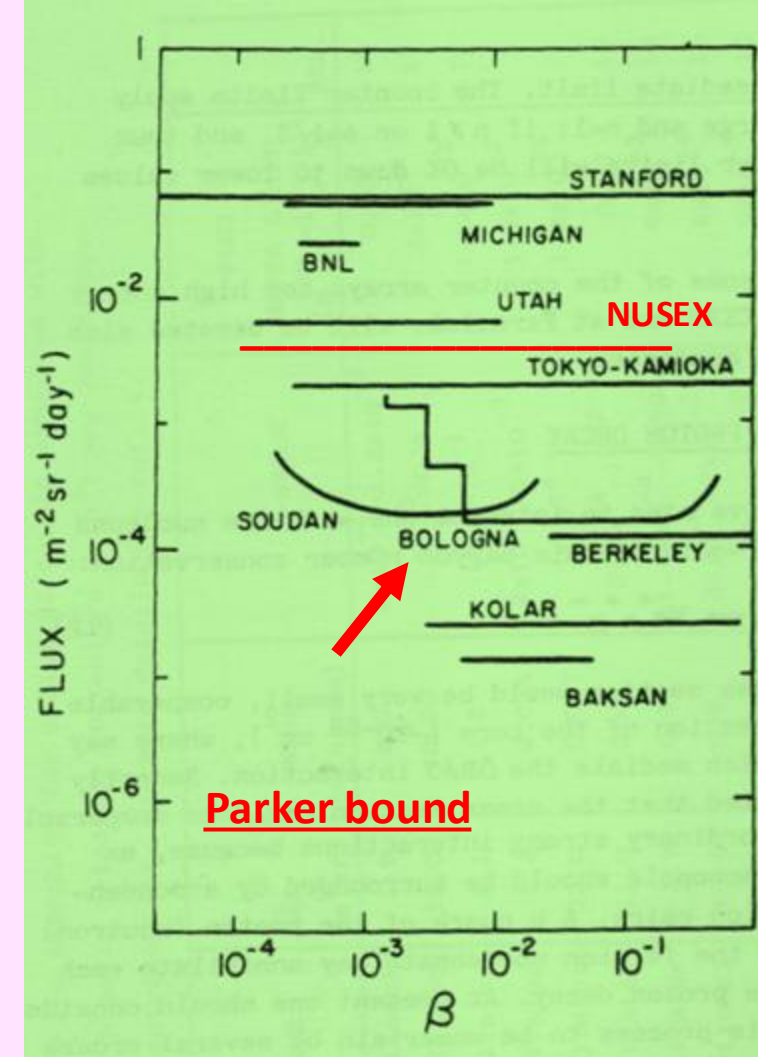
A.K. Mann on a possible US underground Lab

S.L. Glashow on Underground Physics

Giorgio G. report on magnetic monopoles

Giuseppe B. report on NUSEX including limits on  
monopole flux, direct or from p-decay catalysis

The latter case also by Larry S. for IMB



“Monopolo” meetings followed at Frascati (with others?)  
Contacts with ICARUS, visits to Boston (tests on long drift in LAr)

July ICHEP at Brighton: discussion Sergio P. Pio P. Giorgio G. Paul M.  
→ decision to contact Barry B.

Early 1984, startup meeting in Rome:  
**Bari Bologna Frascati Pisa Rome Torino**

... Barry B. ... Carlo B. ...

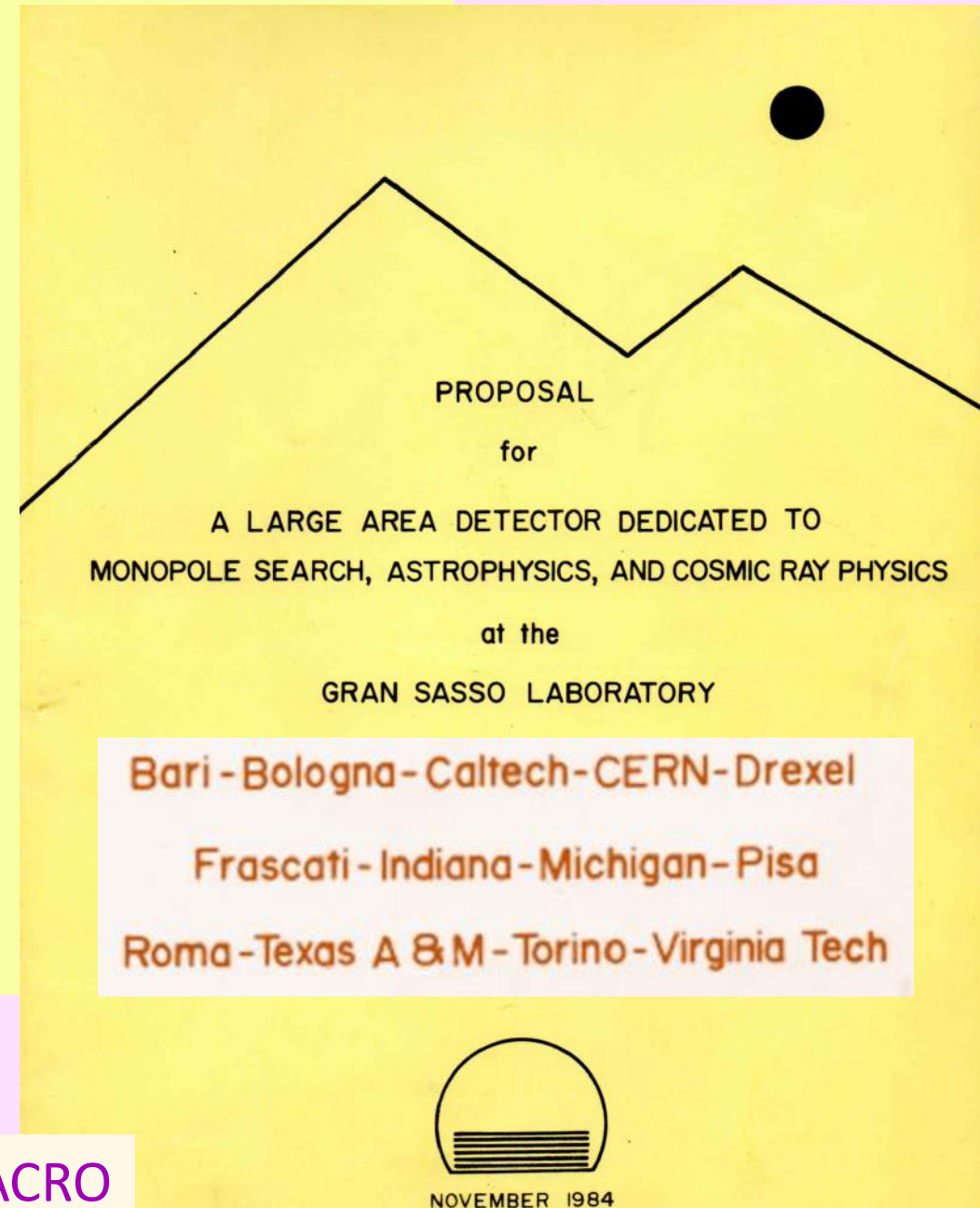
pre-Lol: CERN-Italy in April  
US in May

**1984**

**Second GS Lab funding Law approved**  
**Call for proposal  $\approx$  June by A.Z. Chair of ISC**  
**Lol in July**

**Proposal in November**  
**Lecce and Napoli joined afterwards**

A problem with MACRO

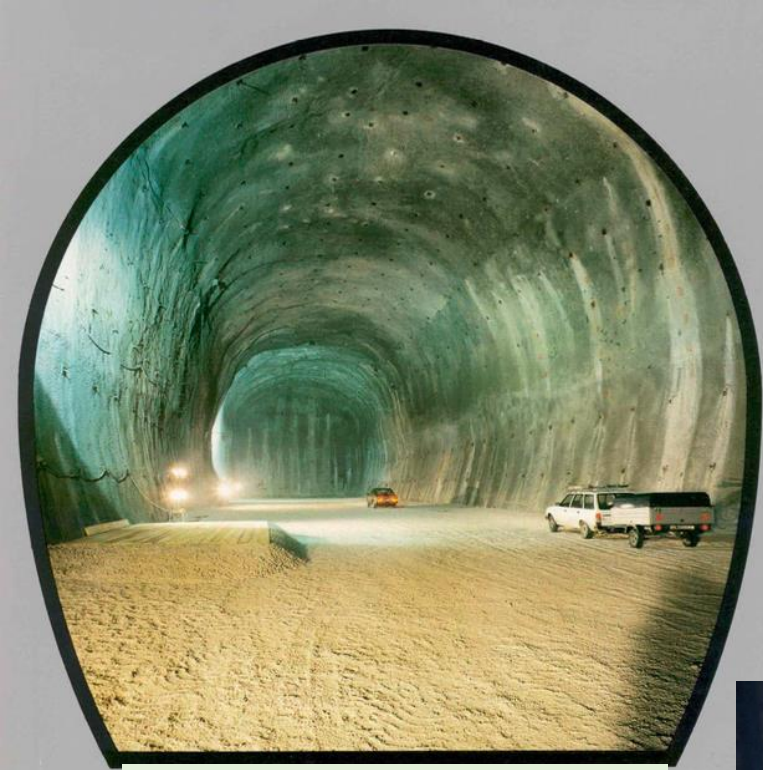


**July 1985** MACRO recommended for approval  
by the International Scientific Committee chaired by N. Cabibbo  
who had succeeded A. Zichichi as President of INFN in Aug 1983

Il Gran Sasso è il terzo Laboratorio europeo, per quanto riguarda la  
presenza di ricercatori USA, dopo il CERN di Ginevra e DESY di Amburgo.

A. Zichichi 1998

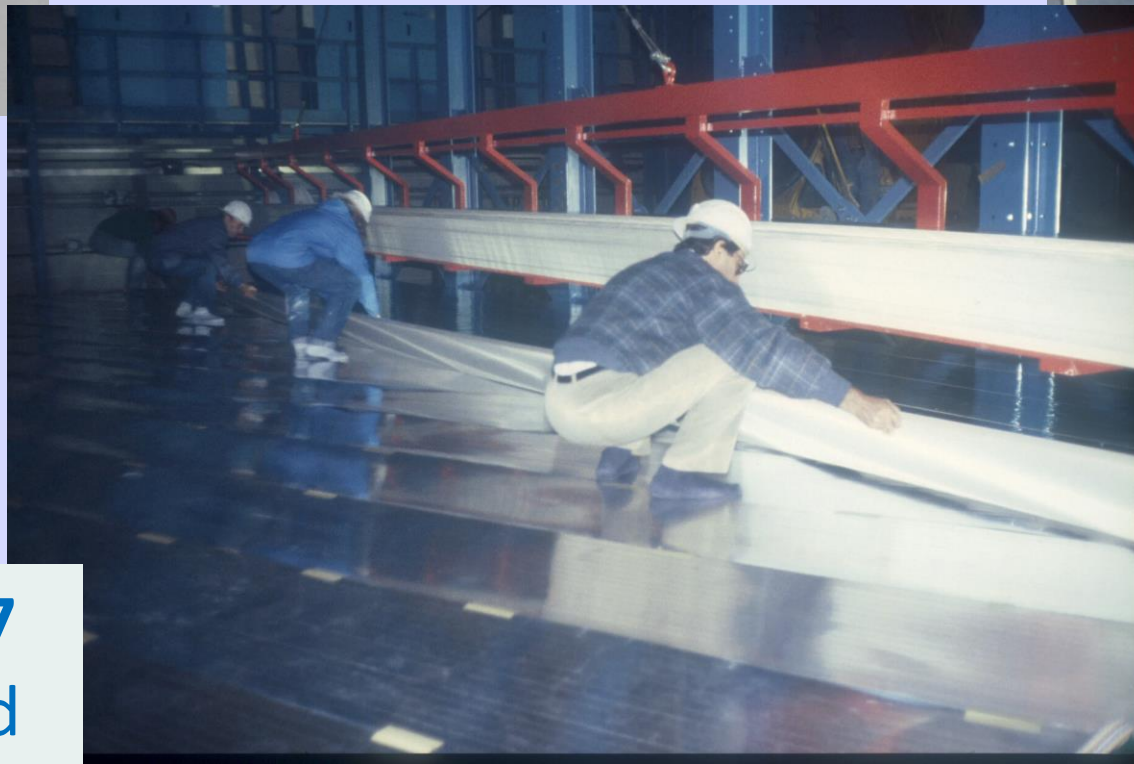
Brookhaven in **GALLEX**  
Indiana MIT Northeastern in **LVD**  
Harvard Wisconsin in **ICARUS**



Hall B  $\approx$  1986

**1985**

INFN awarded a contract  
to Parolini Engineering  
for safety



Hall B Oct **1987**  
dark cold humid

**1987**



**1981**



**1995**



## Recalling a comment by N. Cabibbo as a conclusion

