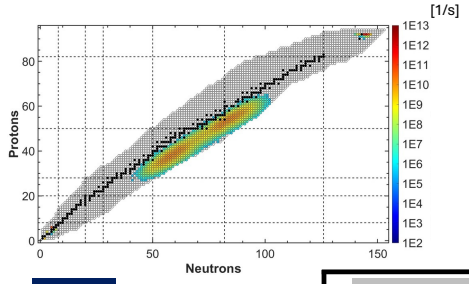
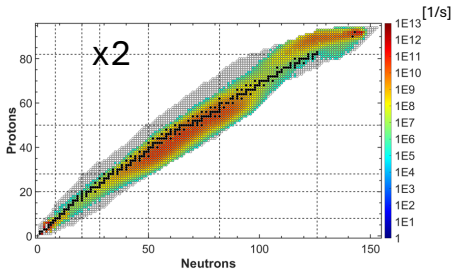
Three parallel RIBs once ARIEL is operational

ISAC I and ISAC-II halls





30 MeV – 10 mA

e- LINAC

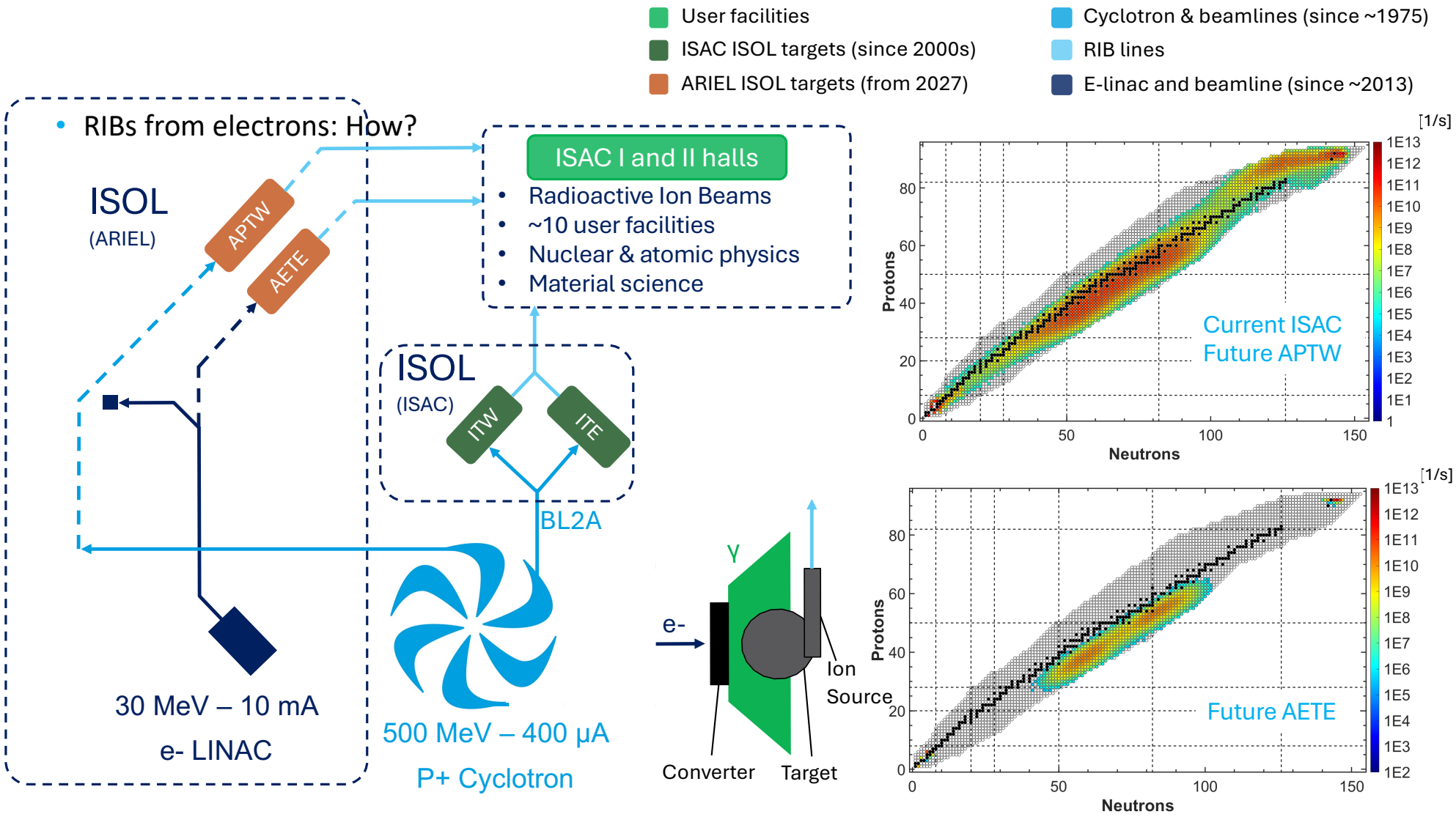
ARIEL - AETE

ARIEL - APTW

ISAC

500 MeV – 100 µA

P+ Cyclotron

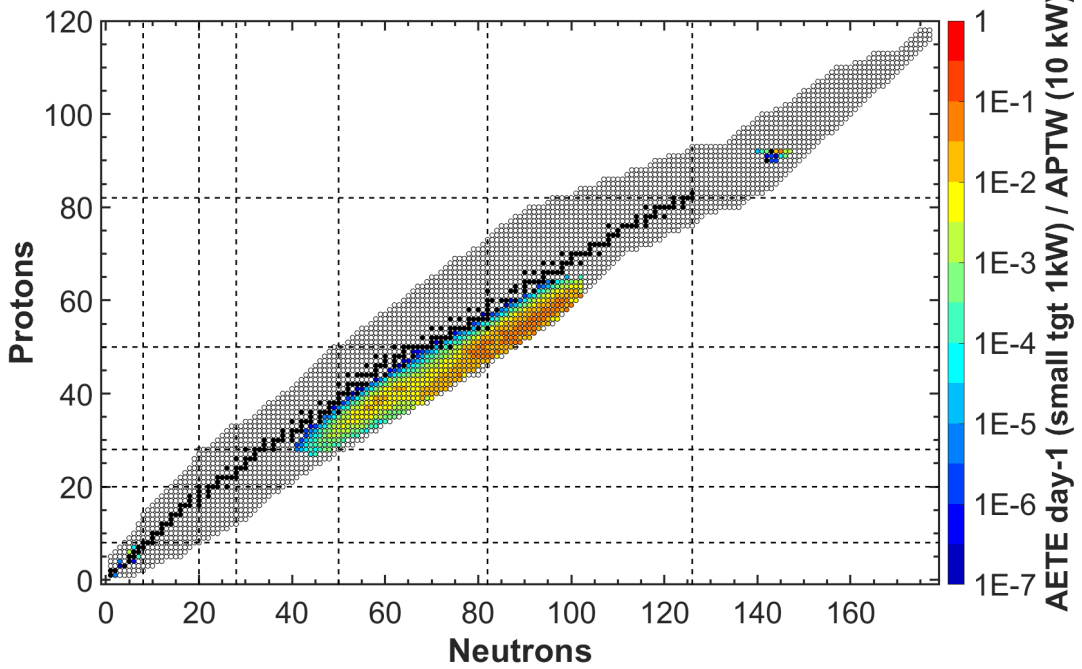

User facilities
ISAC ISOL targets (since 2000s)
ARIEL ISOL targets (from 2027)
Cyclotron & beamlines (since ~1975)
RIB lines
E-linac and beamline (since ~2013)
RIBs from electrons: How?
ISOL
(ARIEL)
APTW
AETE
ISAC I and II halls
Radioactive Ion Beams
~10 user facilities
Nuclear & atomic physics
Material science
ISOL
(ISAC)
ITW
ITE
BL2A
30 MeV – 10 mA
e- LINAC
500 MeV – 400 µA
P+ Cyclotron
γ
e-
Ion
Source
Converter
Target
[1/s]
Protons
Neutrons
Current ISAC
Future APTW
Future AETE

- User facilities
- ISAC ISOL targets (since 2000s)
- ARIEL ISOL targets (from 2027)
- Cyclotron & beamlines (since ~1975)
- RIB lines
- E-linac and beamline (since ~2013)

- RIBs from electrons: How?

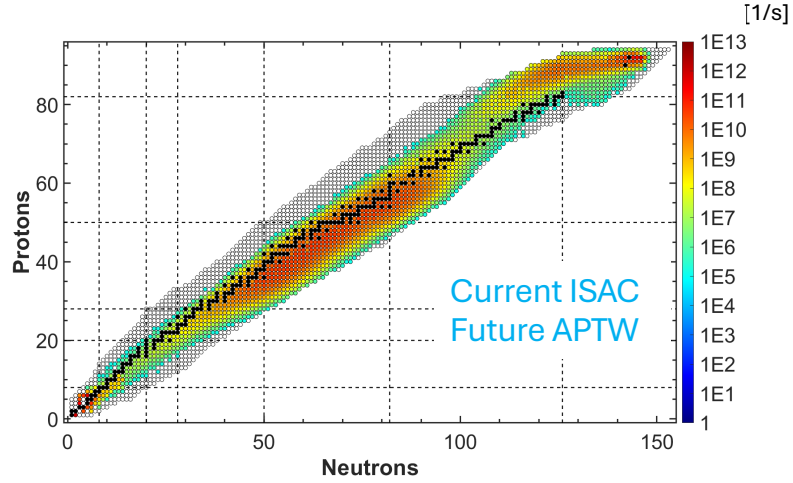
ISAC I and II halls

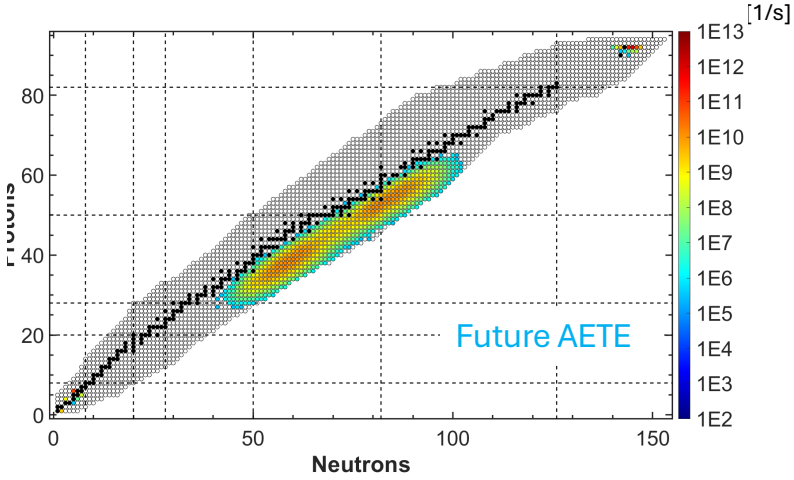
APTW nominal, 10 kW (FLUKA)



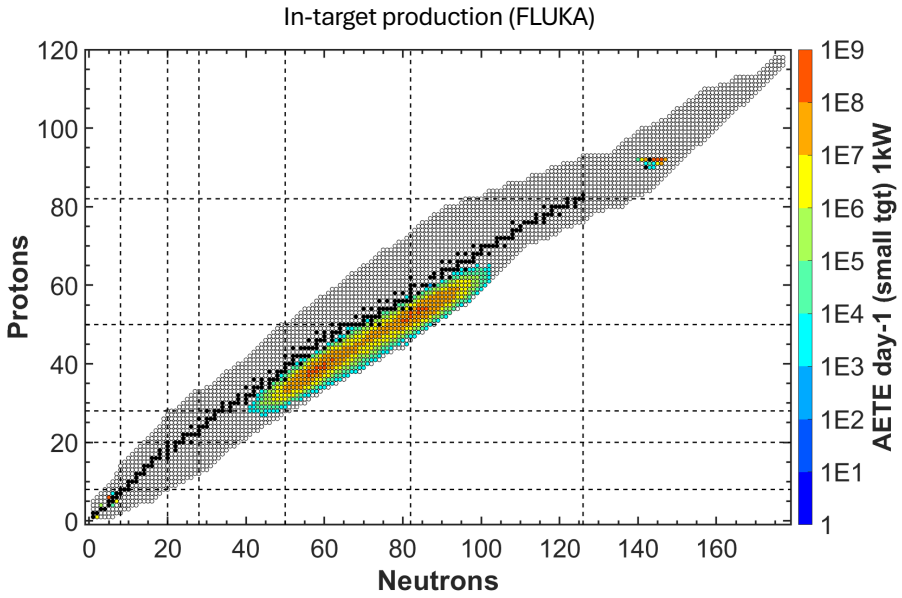
30 MeV – 10 mA
e- LINAC

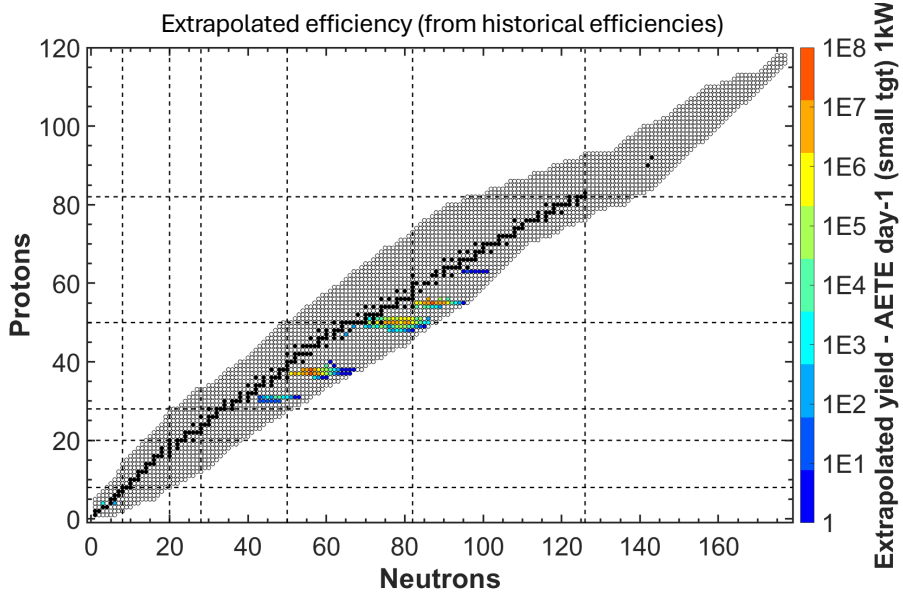
500 MeV – 400 µA
P+ Cyclotron





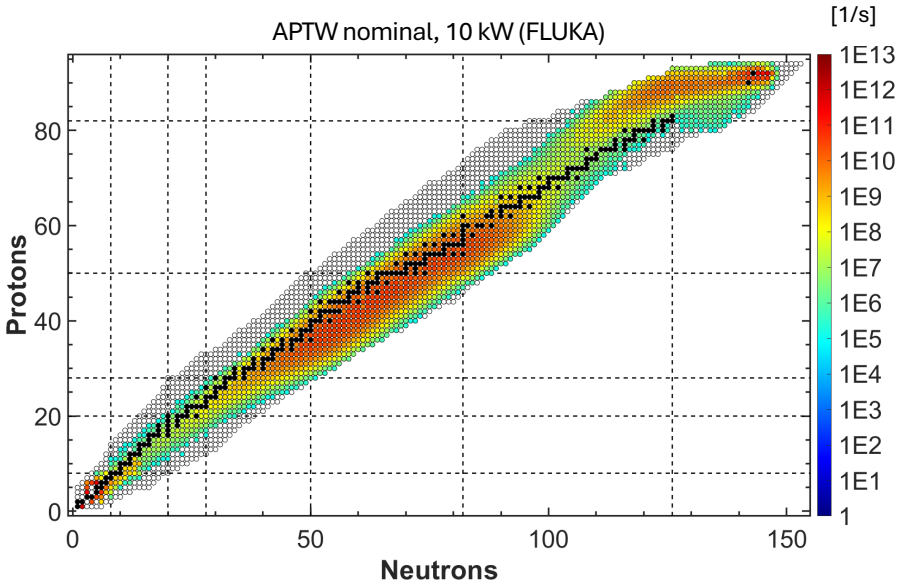
AETE Projected Yields

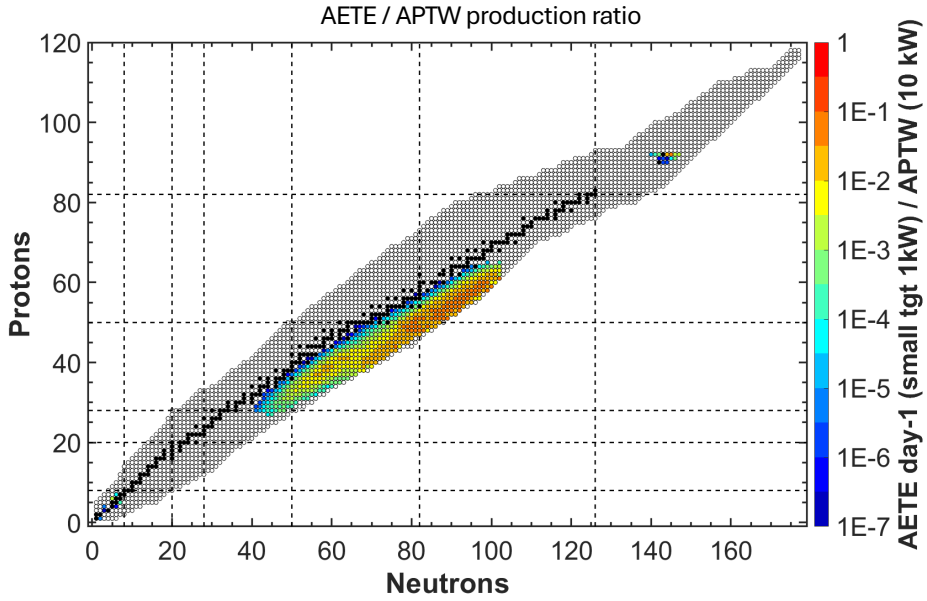




	AETE day-1, 1kW (FLUKA)	Extrapolated yields
85Ga	8.08E+03	0 (not true, yield just not available in database)
150Cs	2.42E+04	5.93E+00
150Ba	2.42E+06	0 (probably just never measured?)
130Cd	5.90E+05	7.25E+00
135Sn	7.15E+05	6.41E+03

AETE / APTW Yield Comparison





	AETE day-1, 1kW (FLUKA)	APTW nominal, 10 kW (FLUKA)
85Ga	8.08E+03	3.58E+07
150Cs	2.42E+04	8.65E+05
150Ba	2.42E+06	3.19E+07
130Cd	5.90E+05	8.80E+06
135Sn	7.15E+05	1.49E+07