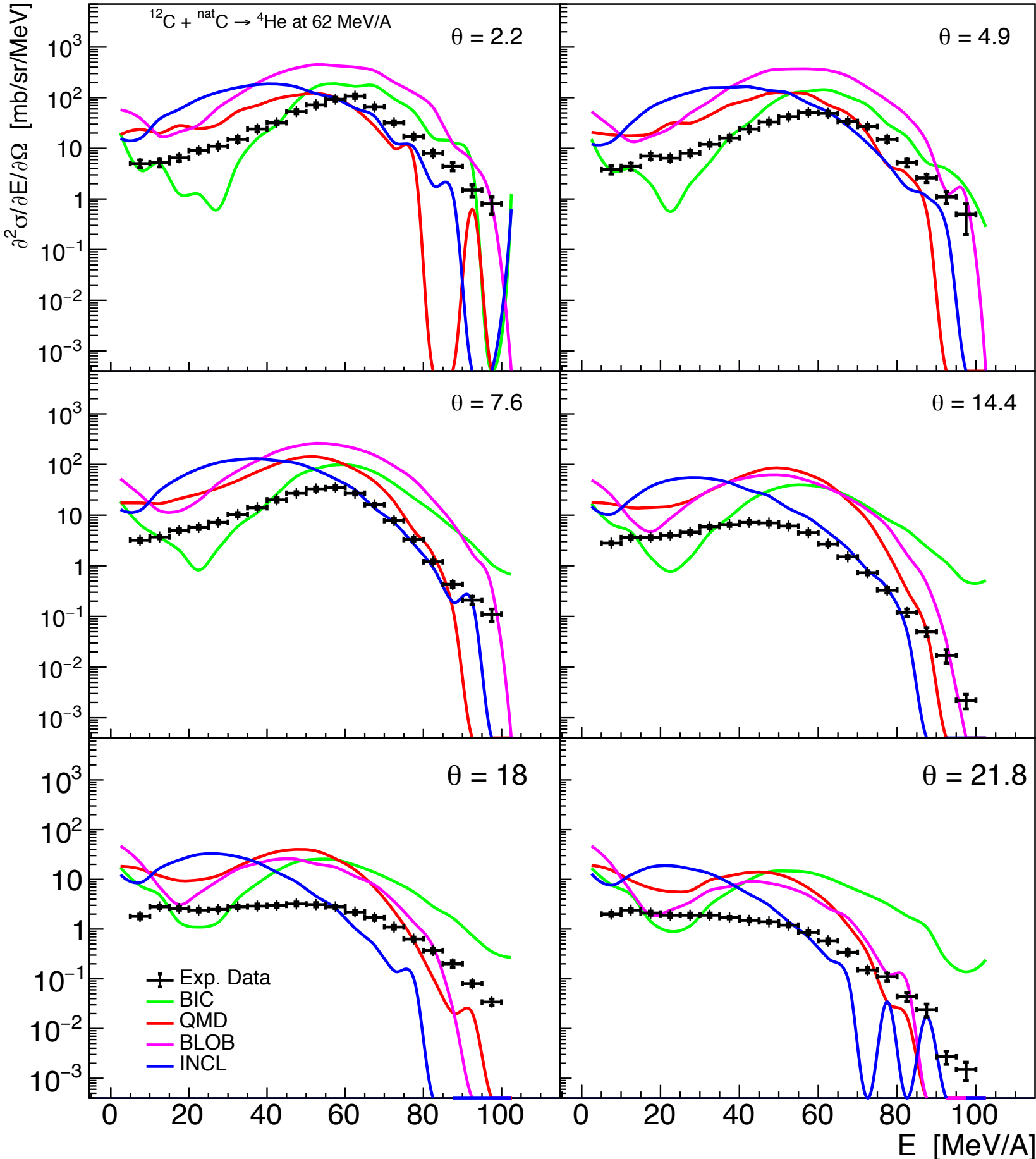# Update on GeNIALE

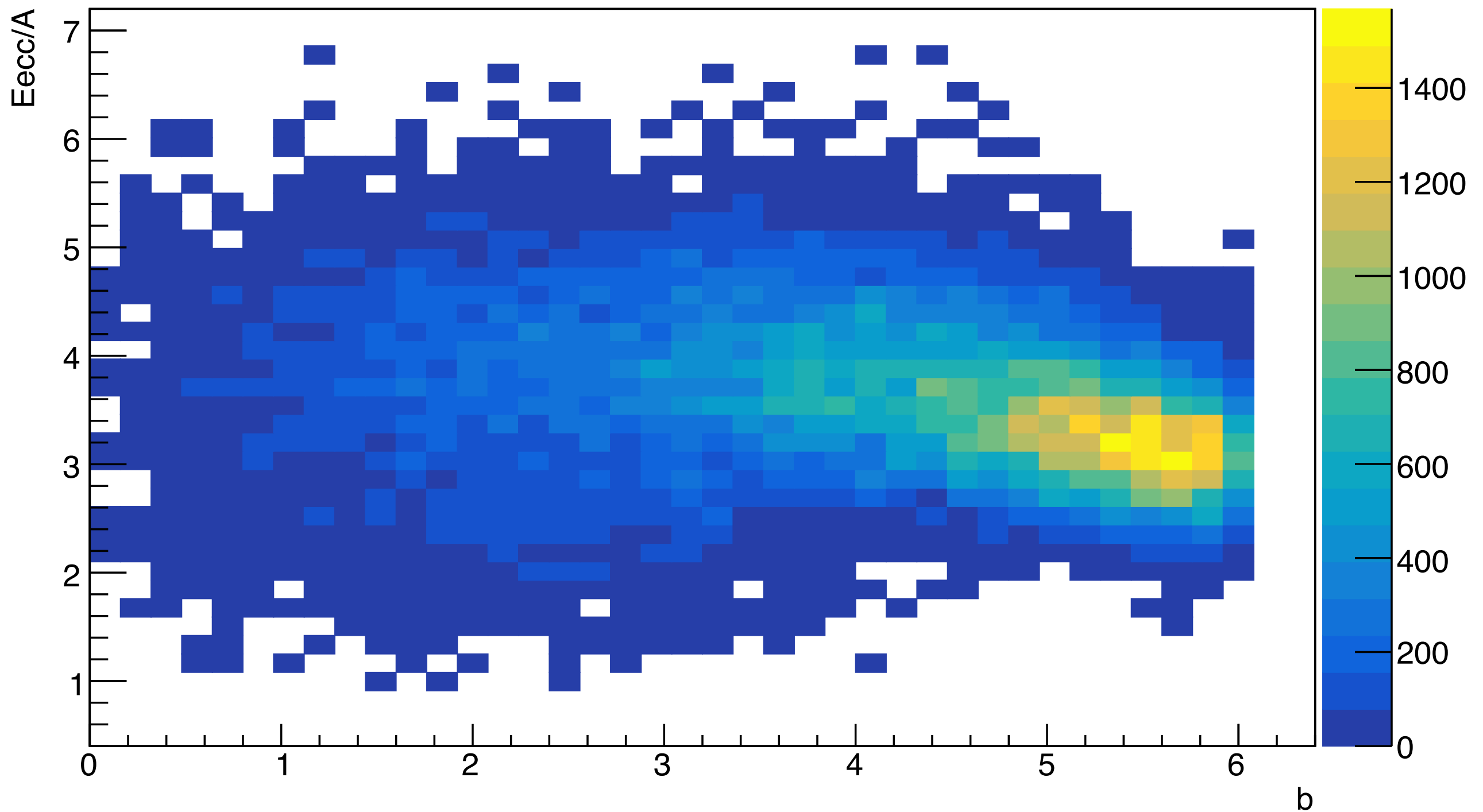Meeting explorer 19/12/2017

BLOB+Geant4

- I coupled BLOB with the de-excitation phase of Geant4 developing a dummy Geant4 model

- The coupling works fine

- The model needs tuning

- Fragments produced in peripheral interaction are too hot

double differential
cross section
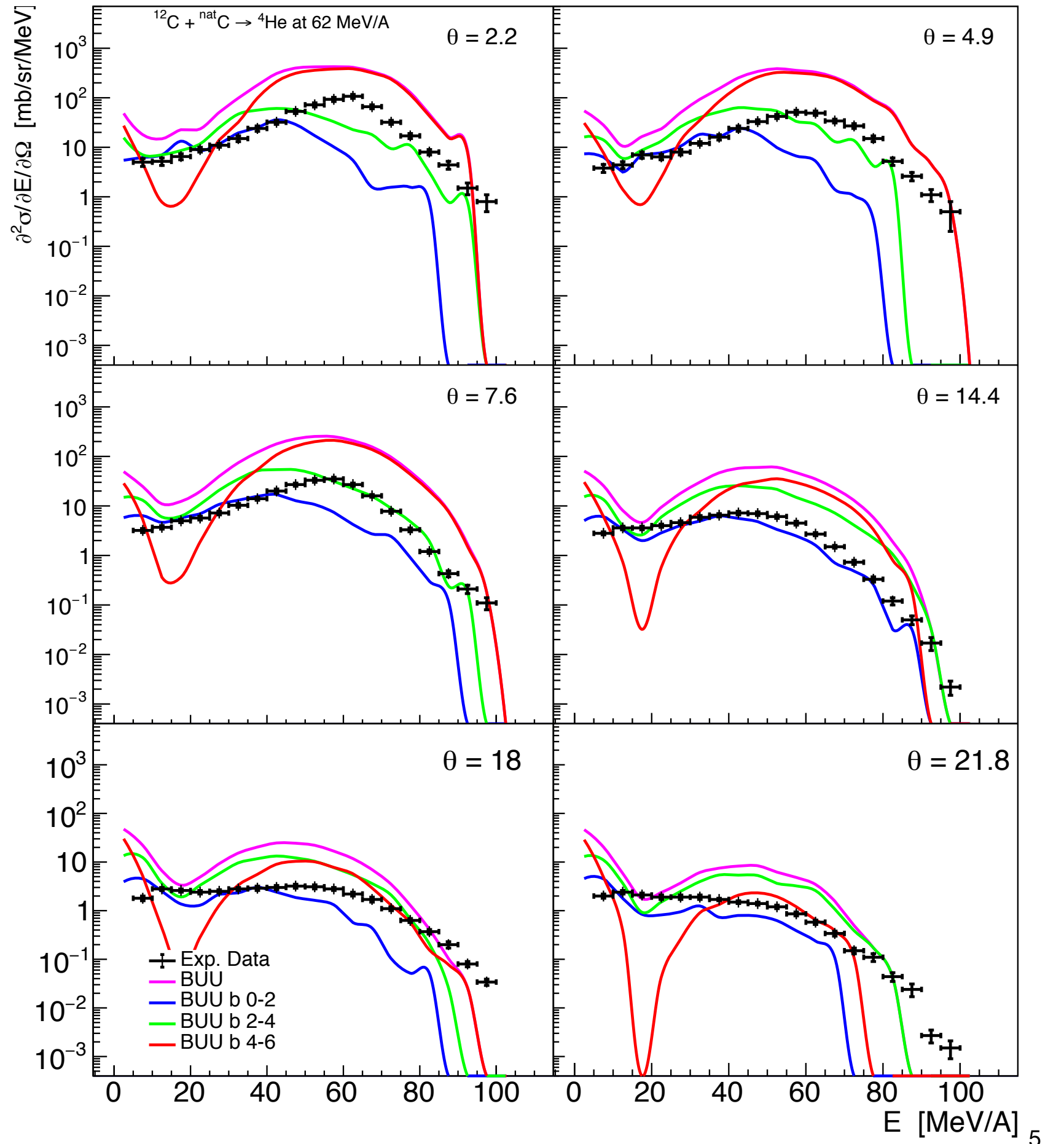of He4 production

comparison with
the G4 models

$^{12}C + {}^{nat}C \rightarrow {}^4He$ at 62 MeV/A

$\theta = 2.2$

$\theta = 4.9$

$\theta = 7.6$

$\theta = 14.4$

$\theta = 18$

$\theta = 21.8$

$\partial^2\sigma/\partial E/\partial\Omega$ [mb/sr/MeV]
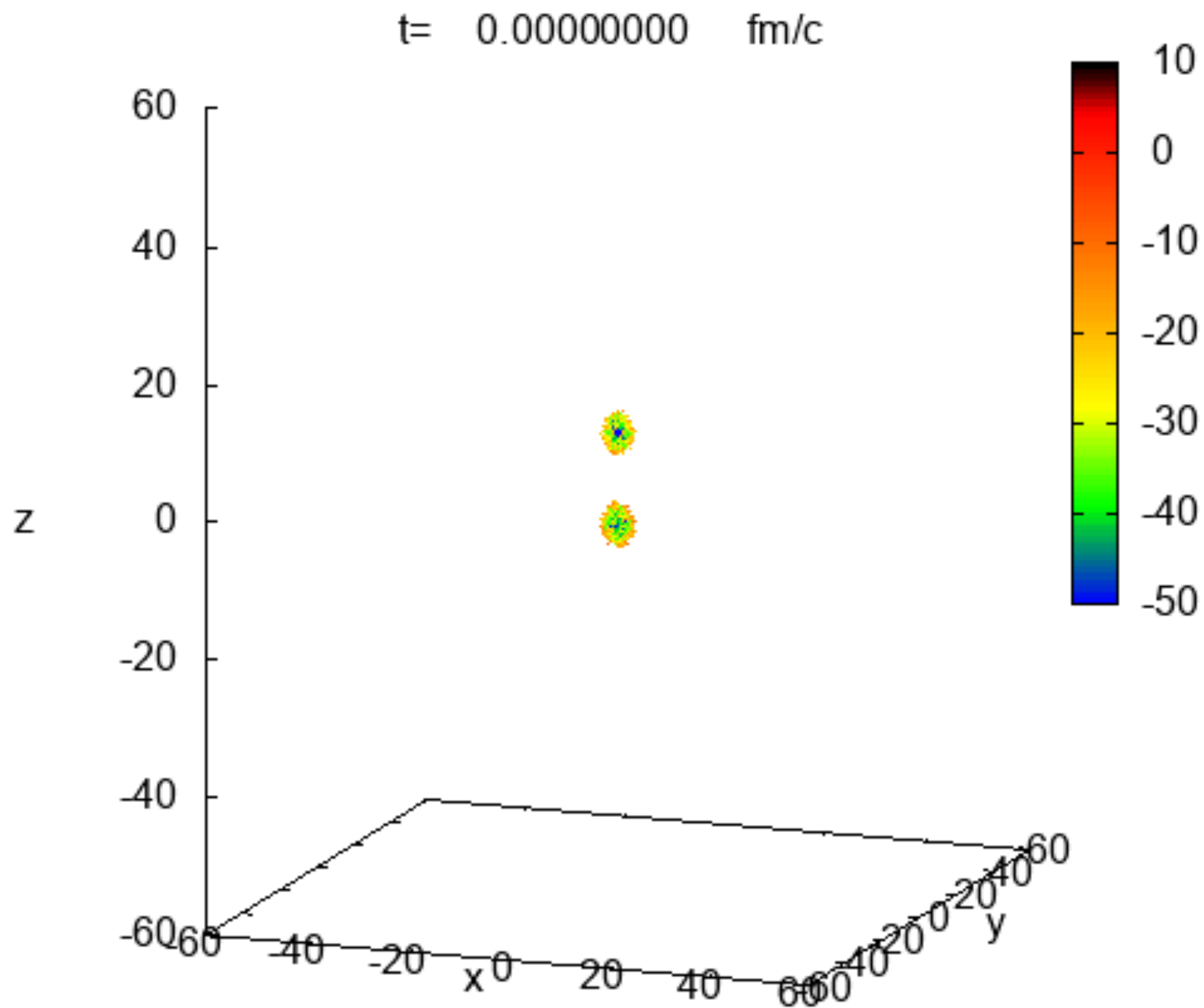
E [MeV/A]

Exp. Data
BIC
QMD
BLOB
INCL

Excitation energy of the hot fragments as a function
of the impact parameter
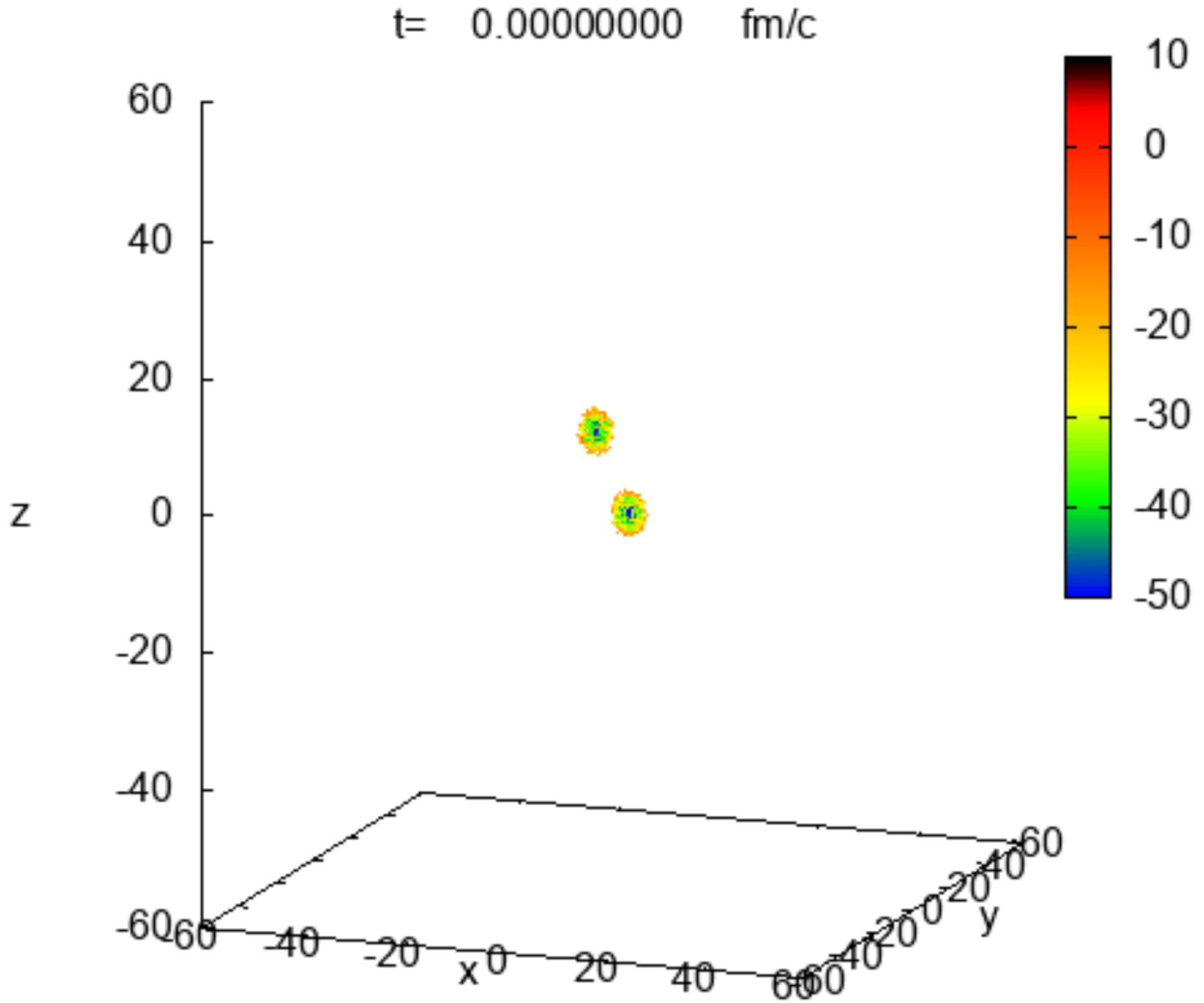
double differential
cross section
of He4 production

contribution from
the different impact
parameters

$^{12}C + ^{nat}C \rightarrow ^{4}He$ at 62 MeV/A

$\partial^2\sigma/\partial E/\partial\Omega$ [mb/sr/MeV]

E [MeV/A]

$\theta = 2.2$
$\theta = 4.9$
$\theta = 7.6$
$\theta = 14.4$
$\theta = 18$
$\theta = 21.8$

Exp. Data
BUU
BUU b 0-2
BUU b 2-4
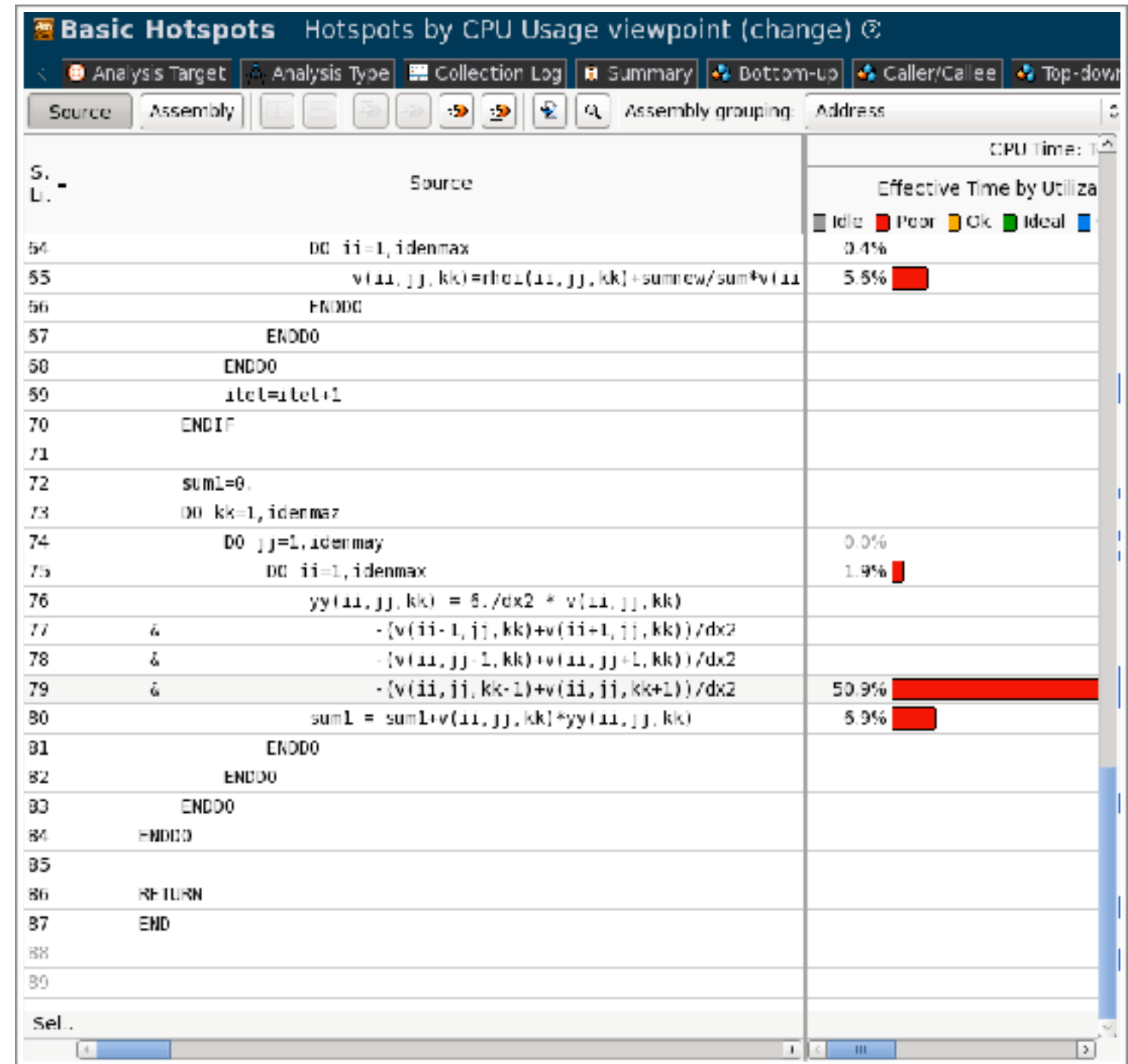BUU b 4-6

b=0

t=   0.00000000   fm/c

b=7

t= 0.00000000 fm/c

BLOB profiling

- Using an Intel profiler I have found that more than 50% of the time is spent in a loop calculating the laplacian of the mean field potential

Microsoft Azure sponsorship

- GeNIALE has been awarded by Microsoft for a Microsoft Azure Research Award

- Up to 20'000$ in computing resources on the Azure cloud

- http://azure.microsoft.com

- http://azure4research.com

- I have to "dockerize" BLOB

Aggiornamento storage Farm

Meeting explorer 19/12/2017

Nuovo storage

- /superb -> /chirone

- Root, Geant4, gcc 6.2 (con gfortran), xerces, binutils, Qt e le librerie python sono state spostate in /chirone/soft/

- fluka e' da reinstallare

- i dati sono stati spostati ma…
  cp: cannot open `dataColl/Merda/CicciaWorld/… for reading: Permission denied
  cp: cannot open `dataSenz/BTF/…' for reading: Permission denied