



# Exercise 8: Scoring

FLUKA Beginner's Course

# Exercise 8: Scoring

## **Aim of the exercise:**

- 1- Add scoring cards
- 2- Practice with AUXSCORE card
- 3- Plot simulation results
- 4- Convert results to ASCII

# Exercise 8: Scoring

- ❑ Start from the solution of ex5 (copy both inp and flair files):  
`mkdir ex8 ; cp ex5/ex5.* ex8/ ; cd ex8`
- ❑ Add 2 **boundary crossing scoring** from TARGS2 (Al) to TARGS3 (Pb):
  - ❑ **Fluence** of e- and e+ with log-E bins (find suitable energy range and #bins) with 1 angular bin (unformatted output on unit 51)
  - ❑ **Current** (unformatted output on unit 52)
- ❑ Note the difference between fluence and current
- ❑ Add 2 **energy deposition USRBIN** by region for the three targets
  - ❑ Total energy deposition (unformatted output on unit 41)
  - ❑ Only electrons. Use **AUXSCORE** to filter the particles (unit 42)
- ❑ Run 5 cycles, 1000 primaries each, process the data files

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- ❑ Plot the results in Flair
- ❑ Plot the USBIN within the Geometry Editor too
- ❑ Convert the result in ASCII and view ex8\_usrbin4[x].lis
- ❑ Verify that results are consistent with the standard output
- ❑ Change #cycles and #primaries and look at the statistical errors

Output Files

Run: <ex6>      Cycles: 006

File	Type	Size	Date
ex6_usrbdx_52_sum.lis	FLUKA lis	5225	2011.11.30 15:39
ex6_usrbdx_52_tab.lis	FLUKA lis	1888	2011.11.30 15:39
ex6_usrbdx_52	-file-	1452	2011.11.30 15:39
ex6_usrbin_41	-file-	292	2011.11.30 15:39
ex6_usrbin_42	-file-	292	2011.11.30 15:39
ex6_usrbdx_51	-file-	1452	2011.11.30 15:39
ex6_usrbdx_51_tab.lis	FLUKA lis	1888	2011.11.30 15:39
ex6_usrbdx_51_sum.lis	FLUKA lis	5233	2011.11.30 15:39

Context Menu:

- View
- Edit
- To ascii
- Refresh
- Delete
- All
- Clear
- Invert

Annotations:

- 1-Left click on data
- 2-Right click on the USBIN
- 3-Left click on "To ascii"

Footer: moccone/Fluka/courses/prague2011/Exercises/ex06\_Scoring      Files: 8 Total Size: 17722