

## flair for FLUKA

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## What's new in Version 0.7.1

- Version 0.7 or higher works ONLY with the new version of FLUKA
- Changed format of geometry debugging and plotting to FREE
- Modified Input class to keep the floating point precision to the maximum number of digits as it entered by the user.
- Multiple project support
- Full Undo/redo mechanism inside Input Editor and Plots
- Added povray exporting
- ROT-DEFI with names and new scoring particles
- New card filters (e.g. active cards from pre-processor)
- All auxiliary programs are configurable
- Automatic reporting of bugs
- Manual in good shape

## **Bodies Transformations & Lattice**

- Flair can perform geometrical transformation for bodies
- The Geometry transformation editor in flair can read and write ROT-DEFI cards with the transformation requested
- An easy way of creating a replica and the associated transformation is the following:
  - Selected the bodies defining the outer cell of the prototype
  - Clone them with (Ctrl-D) and change their names. Click on "No" when you are prompted to change all references to this name.
  - Open the Geometry transformation dialog (Ctrl-T)
  - Enter the transformation of the object in the listbox
  - Click on "Transform" to perform the transformation on the bodies
  - Click on "Invert" button to invert the order of the transformation
  - Enter a name on the "ROT-DEFini" field and click
     "Add to Input" to create the ROT-DEFI cards
  - Now you have to create manually the correct region and the LATTICE card

## Automatic plot generation

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• New plotting dialog for displaying the 2D histogram from USRBDX

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- Added possibility to plot slices (Block) from 2D distributions
- Check boxes for enabling or disabling graph and label
- Manually select the plotting style (Using) in case the user wants to overlap experimental data
- With gnuplot V4.2 or higher there is the possibility to select the Color of the line by name

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- The errors can be plotted in the USRBIN by selecting the checkbutton errors.
- WARNING: The information of the bins is treated as being uncorrelated therefore the errors could be underestimated. Use as indication only
- New feature: 1D projection

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