

From 01/03/26

- Fit/minimization infrastructure: constraint counting, initialization defaults, and safer container usage
- d_BE fitting: optional exclusion of k0 from the minimization
- Visualization: new 2D plot for excitation-energy metric EE#4 (Tmean)
- New 2026 recommended Abrasion-Fission settings
https://lise.frib.msu.edu/17/17_18_07_AF.pdf
- Configuration/examples:
 - new 2026 fission settings
 - ARIS example configurations
- Spectrometer/separator tuning: FOI tuning via % $\Delta B\rho/B\rho$ shift (or equivalently dP/P for fixed q)

Experimental Settings Physics Models Calculations Utilities 1D-Plot 2D-Plot Databases Help

- Projectile
- Target
- Stripper after Target
- Spectrometer Design
- Optics**
 - Tune spectrometer for the setting fragment on beam axis
 - Tune spectrometer for the setting fragment on beam axis (shift % $\Delta B_p/B_p$)**
 - Tune spectrometer for the setting fragment at middle of slit
 - Adjust slits on Fragment of Interest (FOI)
- Gamma registration
- Setting Fragment
- Tune spectrometer for the primary beam

Separator tuning

Tune spectrometer for the setting fragment on beam axis with shift $\Delta B_p/B_p$ (%) relatively the reference B_p is computed from the selected momentum distribution value (mean or maximum)

Shift from reference ($\Delta B_p/B_p$) %

new fission settings: <LISEcute>\files\examples\afission\2026\FissionSettings_2026.lpp
new fission highZ settings : <LISEcute>\files\examples\afission\2026\FissionSettings_2026_HighZ.lpp

new ARIS configuration: <LISEcute>\files\examples\FRIB\ARIS\c_F1S1abc0-k3_CB2twk-N4S.lpp
new ARIS configuration: <LISEcute>\files\examples\FRIB\ARIS\ c_F1S1abc0-k3_CB2twk-S1.lpp

New ARIS option file: <LISEcute>\options\FRIB_2026.lopt (not yet established)

17.18.1	01/07/26	Updated d_Data_fitMinimization handling for constraint counts; fixed DeleteArrays()/deleteArarrays() logic.
17.18.2	01/07/26	CmFitMatrix refactor: replaced manual new[] allocations with std::vector-based storage.
17.18.3	01/07/26	d_Data_fitMinimization: initialize all lm_x values to 1; add ZNV entries to fill the constraint array and ensure correct constraint count.
17.18.4	01/07/26	d_BE minimization: added an option to exclude k0 from the fit.
17.18.5	01/08/26	d_Data_fitMinimization: include global minimization value in the constraint array.
17.18.6	01/08/26	d_Apf_ExcitationEnergy: added a 2D plot for EE#4 (Tmean).
17.18.7	01/12/26	Added new fission settings example file (files/examples/afission/2026/FissionSettings_2026.lpp) and new FRIB_2026 options.
17.18.8	01/12/26	Implemented separator tuning on FOI using a dP/P shift.
17.18.9	01/13/26	Added menu action on_actionTune_spectrometer_FOI_shift_triggered and new option opt->BrhoTuneShift.
17.18.10	01/13/26	Added new ARIS configuration examples under files/examples/FRIB/ARIS (c_F1S1abc0-k3_CB2twk-N4S.lpp, c_F1S1abc0-k3_CB2twk-S1.lpp, e_PSk3b0_c_CB2twk-N4S.lpp in eARIS).
17.18.11	01/13/26	Completed TshiftBrhoDlg dialog for entering opt->BrhoTuneShift; completed spectrometer tuning with %ΔBp/Bp shift.