

NOVICE Software Suite

Significant Software Work 2016-2017

- ✓ **CAD GEOMETRY:** Materials by object, by instance, sorted 23 ways
- ✓ **CAD Viewer:** OpenGL zooms, pans, cuts, blends, hardcopy, size data
- ✓ **6_Side Box:** mass pdfs, minimum mass tiles, macro box setup, leaks
- ✓ **Hot Spots:** minimum path ray plots, graphical zig-zag ray captures
- ✓ **Matrix Algebra Tools:** $R=SMD=S[N+NBN]D$ $M^{-1}=N^{-1}C$ $B^{-1}=C^{-1}N$
 R =response, S =source, D =detector, $N=\exp(-ks)$, $C=dk/dE$, $M\&B$ =multi $N\&C$
- ✓ **KEEPER APPLICATIONS:** saved energy matrix for each/every detector
 Mass Distribution Saves, Ray-Trace Saves, Flux Matrix Saves
- ✓ **Meshed Grid Detectors** using *detector area/volume multi-interval
- ✓ **Virtual Detector Viewing** using %argument point/volume parameter set
- ✓ **Adjoint Secondary Electrons** using bremsstrahlung photon to electron
- ✓ **Multi Thread Runs:** different point/volume detectors on each thread
- ✓ **FAST RAY-TRACE:** Sorted Populations: CAD objects, CAD polygon sets
- ✓ **M(i,j) multi-scatter** $Q=x,u,e,t$ phase space moments, all particles
 distance, position, angular moments, initial/final energy matrix, ...
- ✓ **cases: vectored values for all option letters/processors**
 option_letter=(list enclosed by parentheses) notation
 run case parameter selection TBD
- ✓ **extended log/log, log/linear cubic spline interpolation**
- ✓ **local and global keyword parameters** added to/between processors

THOMAS M. JORDAN
President & Chief Physicist

LARISA MILIC
Aerospace Engineer

WEB
www.empc.com

TEL
301-869-2317

FAX
301-963-3902

MAIL
P.O. Box 3191
Gaithersburg, MD 20885
USA