



NJOY Status

A.C. (Skip) Kahler & R.E. MacFarlane

T-2, Nuclear & Particle Physics, Astrophysics and Cosmology Group

Theoretical Division

Los Alamos National Laboratory

2013 CSEWG Meeting / Nuclear Data Week

Brookhaven National Laboratory

November 18 – 22, 2013

UNCLASSIFIED





Abstract: We provide a summary review of recent changes to the T-2 Group web site with particular emphasis on the “Nuclear Information Service” and the NJOY Nuclear Data Processing Code System.

UNCLASSIFIED



<http://t2.lanl.gov>

The <http://t2.lanl.gov> web address now serves as the top level for LANL's T-2 (Nuclear & Particle Physics, Astrophysics and Cosmology) Group.

The "Nuclear Information Service", which was the previous top level, is now one of several links found to the left on this new top level page.

The "Nuclear Information Service" url is <http://t2.lanl.gov/nis>.

The screenshot shows the LANL T-2 website interface. At the top, there is a navigation bar with 'Home', 'Phone', 'Library', 'Subscribe', 'Low-bandwidth', and social media icons. A search bar is located on the right. The main heading is 'T-2, Nuclear and Particle Physics, Astrophysics and Cosmology'. On the left, there are three vertical menus: 'T Division' (listing Nuclear Information Service, Nuclear Physics, Particle Physics, Astrophysics, and Cosmology), 'FOCUS AREA S', and 'CONTACTS' (listing Group Leader Joe Carlson, Deputy Group Leader Gerry Hale, and Administration Kay Grady). The central content area features a 'T-2 Home' section with a timeline titled 'Radii of the Visible Universe' vs 'Age of the Universe'. The timeline is a funnel-shaped diagram with stages: Big Bang, Inflation, Quark Soup, Big Freeze Out, Parting Company, First Galaxies, and Modern Universe. Below the timeline, there is a paragraph of text describing the group's research in applied and fundamental nuclear physics, particle physics, astrophysics, and cosmology. To the right of the timeline is a 'T-2 Resources' section with a list of links including Seminars, Group Roster, Jobs, DOE Office of Science Programs, Nuclear Physics, High Energy Physics, Fusion Energy Sciences, NNDC, RSICC, NEA, and US Nuclear Data Program. At the bottom of the page, there is a footer with 'Contact Us | Careers | Bradbury Science Museum | Emergencies | Inside LANL | Maps | Site Feedback | SSL Portal | Training' and a small NNSA logo.



<http://t2.lanl.gov/nis>

All “Nuclear Information Service” features, including links to Data, Codes, Publications and Training, that were previously available remain.

Any bookmark that contained “t2.lanl.gov” should be changed to read “t2.lanl.gov/nis”.

The screenshot shows a web browser window displaying the T-2 Nuclear Information Service website. The browser's address bar shows the URL t2.lanl.gov/nis/. The website header includes the Los Alamos National Laboratory logo and a search bar. The main content area is titled "T-2 Nuclear Information Service" and features a central graphic of a stylized atom. To the left is a navigation menu with links for "T-2 Home", "NIS Home", "RESOURCES", "Tour area", "Data area", "Codes area", "Publications area", and "Training area". Below the menu is a "CONTACTS" section with email addresses for Bob (ryxm@lanl.gov), Peter (moller@lanl.gov), and Mark (mparis@lanl.gov). The main text area contains a "Welcome to the T-2 Nuclear Information Service" message, followed by a detailed description of the site's focus on nuclear modeling, data, and codes. To the right, there are sections for "Related Sites" (including NNDC, RSICC, NEA Data Bank, IAEA, and JAEA) and "News" with several recent updates. The footer contains a navigation bar with links for "Contact Us", "Careers", "Bradbury Science Museum", "Emergencies", "Inside LANL", "Maps", "Site Feedback", "SSL Portal", and "Training".





<http://t2.lanl.gov/nis/codes.shtml>

This url provides links to both NJOY99 and NJOY2012.

Future development of NJOY99 will be very limited.

NJOY2012 distribution is coordinated through LANL's Technology Transfer Division.

Contact information may be found at <http://t2.lanl.gov/nis/transfer.html>

...

Ms. Mariann R. Johnston
 Software Licensing
 Technology Transfer Division
 Los Alamos National Laboratory
 Office: 505-667-4391
 Email: mjohnston@lanl.gov

File Edit View History Bookmarks Tools Help

LANL Inside x Page Name: Subject/Program/Projec... x +

t2.lanl.gov/nis/codes.shtml

Home Phone Library Subscribe Low-bandwidth

Los Alamos NATIONAL LABORATORY EST. 1944

Search

T-2 Nuclear Information Service

T-2 Home » T-2 Nuclear Information Service

T-2 Home

NIS Home

RESOURCES

Tour area

Data area

Codes area

Publications area

Training area

Codes Area

This area gives information on various computer codes used in our nuclear data work.

NJOY99

NJOY99 is the standard Fortran-77 release of the NJOY Nuclear Data Processing System. The system is used to convert evaluated nuclear data in the Evaluated Nuclear Data Format (ENDF) into forms useful for a wide range of nuclear applications. This area is only to provide user support, such as updates and sample problem outputs. To obtain an official copy of NJOY99, contact one of the code centers (RSICC, NEA-Data Bank, etc.).

NJOY 2012

NJOY 2012 is a new version of the NJOY Nuclear Data Processing System using Fortran-90/95 style. It includes all the capabilities of NJOY 99 plus an ability to process evaluations using the newer Reich-Moore Limited (RML) resonance format now allowed in ENDF files. The NJOY 2012 User Manual LA-UR-12-27079_Rev is available here and in the Publications area. For an alternative description of NJOY 2012, see the *Nuclear Data Sheets* article.

TRANSX 2

TRANSX is a code for preparing data tables for nuclear transport codes from cross-section libraries in MATXS format. An online [HTML instruction manual](#) is available.

News

The latest version of NJOY99 (99.396) was released in August of 2013 with an effective date of 8 August 2013.

NJOY2012 was originally released in February 2012 with an effective date of 21 Dec 2012. The code is being made available through the Technology Transfer Office at Los Alamos. Contact information is here.

The latest version of NJOY2012, designated NJOY2012.8 was released in August of 2013 with an effective date of 8 August 2013.

Contact Us | Careers | Bradbury Science Museum | Emergencies | Inside LANL | Maps | Site Feedback | SSL Portal | Training

Operated by Los Alamos National Security, LLC for the U.S. Department of Energy's NNSA © Copyright 2010-11 LANS, LLC All rights reserved | Terms of Use | Privacy Policy



<http://t2.lanl.gov/nis/codes/NJOY12/index.html>

The basic page layout is virtually identical to that used for NJOY99

One change is that the manual is available as a downloadable pdf file.

Basic installation instructions are contained in the "Readme0" link; cursory information on the various updates is available in the "Readme#" link.

Test suite input and output files are available.

NJOY 2012
Nuclear Data Processing System

The NJOY 2012 User Manual LA-UR-12-27079 Rev (pdf):
[Report](#)

Basic Instructions:
[Readme0](#)

Current Description:
[Readme8](#)

Latest Updates:
[up8](#)

User Input Instructions:
[Userinp](#)

Interface File Formats:
[Ifiles](#)

Test Problem Input and Output Files:

These test results are from a Mac workstation running the Intel ifort compiler with -fast (see [makef.int](#)). NJOY2012 can also be run using the free g95 compiler on Mac or linux (see [makef.g95](#)) or the GFortran compiler included on most linux distributions (see [makef.gfn](#)). Windows users can run the test problems using the free g95 compiler (see [makef.win.g95](#)) or the Intel ifort compiler (see [makef.win.ifort](#)). Convenient scripts for installing NJOY12 on Windows machines are available here as [makeNJOY.win1.bat](#) and [makeNJOY.win2.bat](#).

Problem	Input	Outputs	DOS Input
1	in01	out01 , pend01	run01.bat , in01.dat
2	in02	out02 , pend02	run02.bat , in02.dat
3	in03	out03 , pend03	run03.bat , in03.dat



NJOY2012

- NJOY2012.0 was released in December, 2012
- NJOY2012.8 was released in August, 2013.
 - Additional patches are being prepared for release in December, 2013.

UNCLASSIFIED