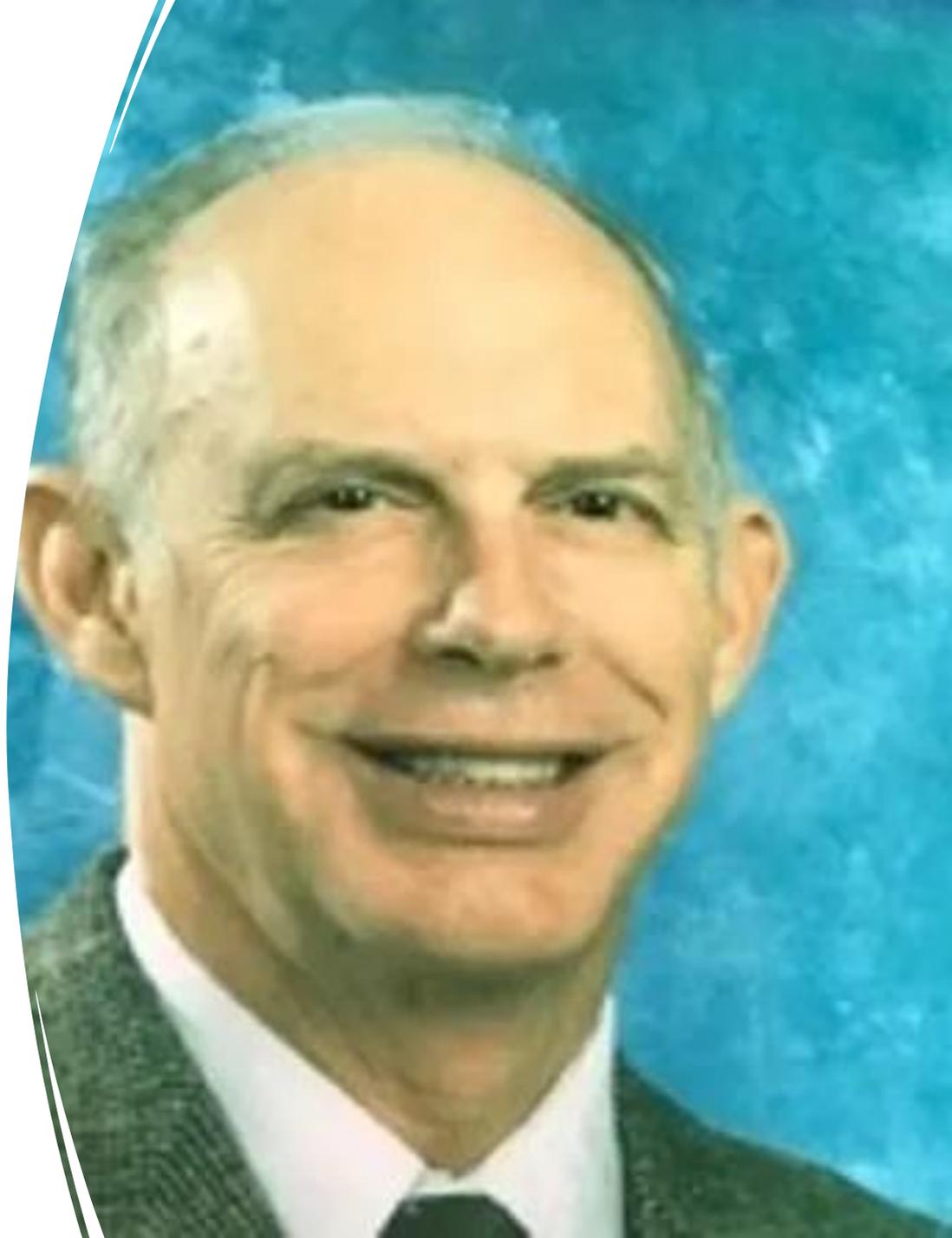
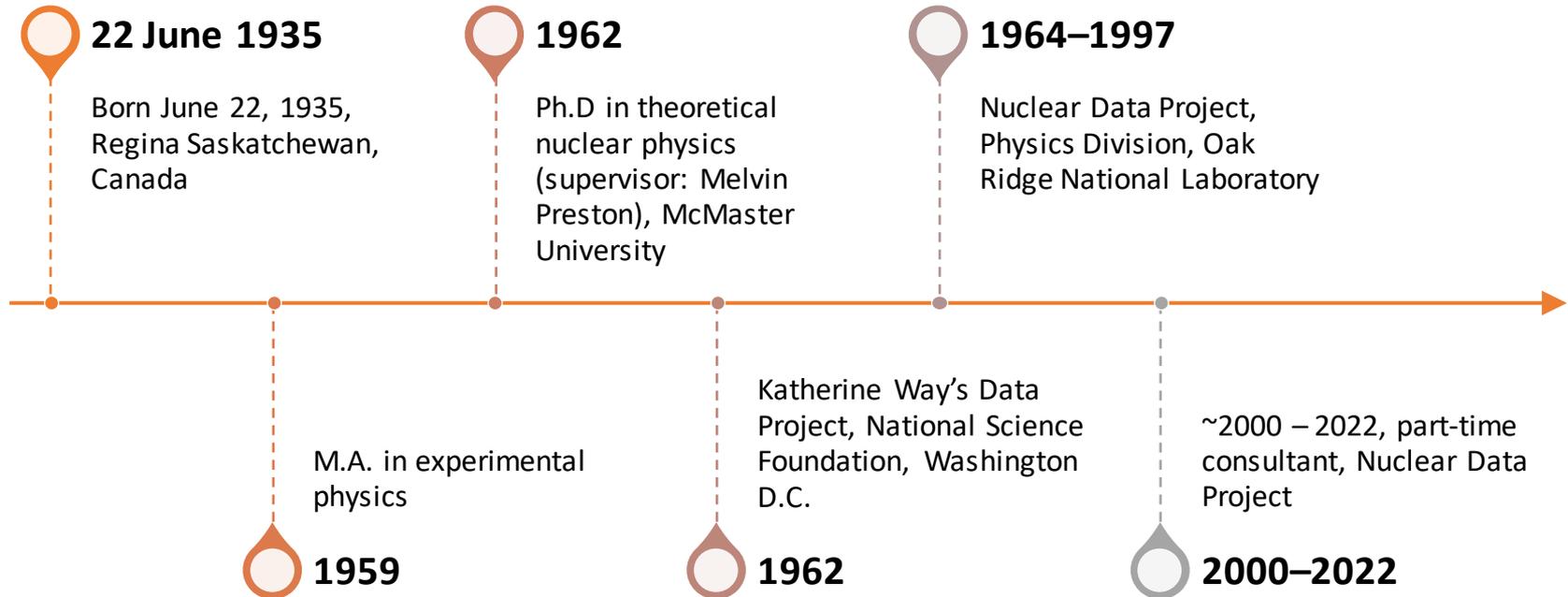


In Memoriam

Murray John Martin
1935 - 2022



In ENSDF from the very beginning





In Jag's own words....

I first met Murray in 1971.

He was member of Nuclear Data Project at Oak Ridge National Lab.

It was perhaps the first evaluation workshop.

I was part of NIRA program sponsored by the National Academy of Sciences/National Science foundation and AEC. AEC later become ERDA and eventually DOE by President Carter.

Murray was one of the instructors.

My impression of him was of a very gentle, soft spoken, caring person.

I think he lectured on angular correlation data.



Those days, reaction data were limited to single-particle transfer, some inelastic scattering of light particles and n-capture.

Different members of NDP were experts on various different aspects of evaluation data. For example, Yurdanur Akovali/Marcel Schmorak were the heavy mass ($A > 220$), alpha-decay experts. S. Raman on spin assignments, Fred Bertrand on reaction data. Ben Harmatz on conversion electrons, etc.

My impression is Murray's expertise was angular correlation and level half-life, etc.



The NIRA committee was headed by Herman Feshbach with Fay Ajzenberg-Selove as secretary.

Dan Horan was the Head of NDP. For internationalization Sol Pearlstein, Joe Schmitt were instrumental. Murray was always supporting NIRA members.

Main evaluation centers were NDP at ORNL, Table of Isotopes at LBL, Fay Selove at U Penn, and Utrecht (Pieter Endt and Core Van Der Leune). Heinz Behrens at Karlsruhe was involved with ENDF.



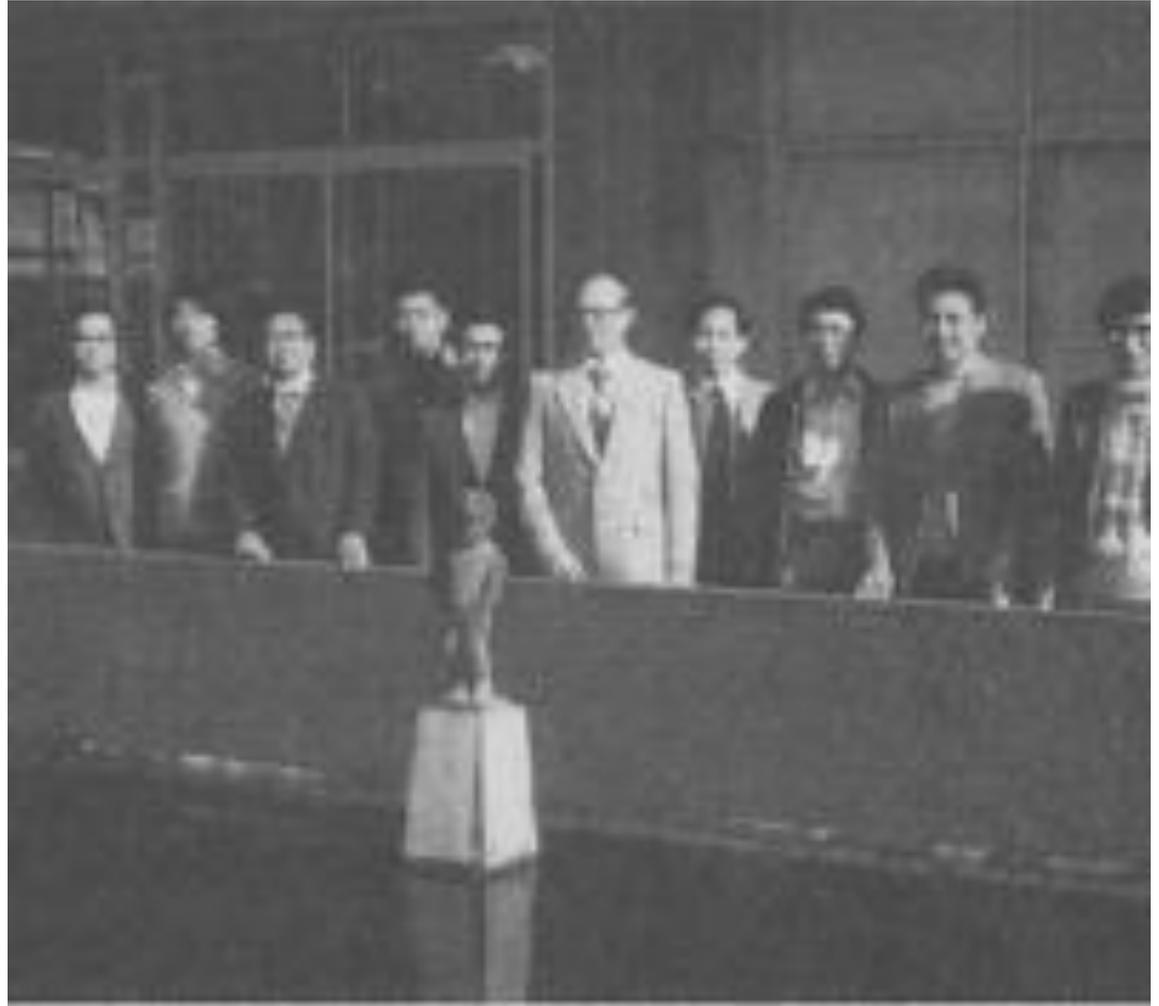
NNDC was National n-cross section center and wanted to expand into structure evaluation. There was immense opposition but it had DOE support (George Regosa).

First int'l workshop was conducted at Oak Ridge in 1998. Balraj Singh, Peter Ekstrom attended. Bruce Ewbank was NDP Head. Bruce is the creator of NSR, ENSDF and many of analysis programs.

ENSDF- format Workshop, Oak Ridge 1978



ENSDF
Workshop,
JAEA, 1979





This was before the advent of PC's and NNDC had a great advantage of having its own main-frame computer.

When NNDC took over computerization of NSR publication, Bruce left NDP. By then only Murray Martin and Yurdanur Akovali (Ellis) were left at NDP.



Pieter Endt vehemently opposed NNDC take over of structure data and agreed to stay in the network only if NDP played a significant role in editing of NDS. As a compromise, Sol asked me to work with Murray. As the famous lines go “this was start of a beautiful relationship”.



Murray, with help from Mary Lay, went through all NDS manuscripts before their publication.

We spent couple hours, practically every day, discussing the evaluations over the phone.

I developed a great respect and personal liking for Murray. Although, NNDC management, fighting for the turf, didn't like it and accused me of my making private peace with NDP (taunting me with "sleeping with the enemy"), I continued to have a very congenial and mutually respectful relationship with him.

Our relationship continued till he retired.



Later, when at Pavel's suggestion, Alan Nichols at IAEA, started Trieste workshop I wanted Murray and Balraj also as instructors; however, due to various constraints it didn't happen until much later.

All these years as Editor-in-Chief of NDS, he also chaired the formats and procedures sub-committee of USNDP. We spent hours/days arguing policies and procedures. Murray was instrumental in deciding on the final procedures and policies.

Similarly, at NSDD, we used to spend the afternoons to technical issues, and it was a pleasure listening to defending practices between Pieter Endt and Murray Martin.



NSDD meeting, Utrecht, 1982

NSDD
meeting,
Karlsruhe,
1984



NSDD
meeting,
Ghent, 1988





NSDD meeting, 1992, Geel

Murray was a great mentor. His reviews were often educational. Often reviews were longer than the manuscript! Dick Helmer once joked that ***maybe we should start with the review then do the evaluation!*** In his retirement he was teaching music.

He didn't take up US citizenship until very late. In the 80's whenever we had a meeting in a Govt. building, e.g., at Idaho Falls security will be looking for a non-citizen in the list and they will look at me!

mass-chain evaluations

- 1966 – 2019: authored and co-authored 33 mass chains (66, 71, 108, 138, 145, 145-148, 152, 184, 188, 195, 200, 204, 207, 208, 209, 211, 212, 216, 218, 220, 224, 228, 238, 241, 248)
 - First mass chains published in 1966: $A = 71, 184, 188$
 - Final mass chain published in 2019: $A = 218$



ELSEVIER

Nuclear Data Sheets

Volume 160, September–October 2019, Pages 405-471



Nuclear Data Sheets for $A=218$

Balraj Singh ^a✉, M.S. Basunia ^b, Murray Martin ^c, E.A. McCutchan ^d, Indu Bala ^e, R. Caballero-Folch ^f, Rhiann Canavan ^{g, h}, Ritwika Chakrabarti ⁱ, A. Chekhovska ^j, M.M. Grinder ^k, Samra Kaim ^l, Debasmita Kanjilal ^m, D. Kasperovych ⁿ, M.J. Kobra ^o, H. Koura ^p, Soumen Nandi ^q, Adina Olacel ^r, Abhilasha Singh ^s, B.P.E. Tee ^t

Achievements

1962-2022:

60 years of valuable
contributions to ENSDF
evaluators

Approved for public release. Distribution is
unlimited

ORNL/TM-2022/1835

Guidelines for Nuclear Structure Evaluators



Murray J. Martin (ORNL/UTK)

4/26/2021

OAK RIDGE NATIONAL LABORATORY

Important mass chains

A = 208: most difficult and impactful evaluation in ENSDF

- First evaluation: 1986MA17 (NDS 47, 797-964 (1986)
- Second evaluation: 2007MA15 (NDS 108, 1583 (2007)
- Murray was working on the third update

Acknowledgements in research publications:

2014He02: A. Heusler et al., PRC 89, 024322 (2014)

ACKNOWLEDGMENTS

The basic work of M. Martin is highly acknowledged.

2016He04: A. Heusler et al., PRC 93, 054321 (2016) in text:

"Nevertheless, the careful study of Martin [1,107] yields an important primary step of the evaluation of all data existing in 2007".

Refs. [1 and 107]: Murray's 2007 and 1986 NDS evaluations.

More Achievements



Atomic Data and Nuclear Data Tables

Volume 10, Issue 3, November 1971, Pages 205-219



Log- f tables for beta decay *

N.B. Gove, M.J. Martin

Procedures Manual for the Evaluated Nuclear Structure Data File (1987)

PHASE CONVENTIONS FOR MIXING RATIOS IN ELECTROMAGNETIC TRANSITIONS FROM ANGULAR CORRELATIONS AND ANGULAR DISTRIBUTIONS

M. J. Martin

Oak Ridge National Laboratory, Oak Ridge, Tennessee

August, 1987

NS MEMO 1B/1 (82)

September 27, 1982

NS MEMO 1B/1 (82)

September 27, 1982

To: NSDD Network Evaluators
From: M. J. Martin
Subject: Reduced Gamma-Ray Matrix Elements, Transition Probabilities, and
Single-Particle Estimates

To: NSDD Network Evaluators
From: M. J. Martin
Subject: Reduced Gamma-Ray Matrix Elements, Transition Probabilities, and
Single-Particle Estimates



Later about the time I retired, Murray reappeared to help NSDD again with various chores which Vivian will describe.

All I have to say, it has been a great honor and privilege to know and work with Murray. He was a wonderful human being and a great mentor and a friend.

May his soul rest in peace!



NSDD meeting + Specialized Workshop, IAEA, Vienna, 2015

Revision of Murray's Evaluator's Guidelines,
version 2015



- Founded in 1964 by Nobel Laureate Abdus Salam
- Mission is to advance scientific expertise in developing countries through targeted higher education and training programmes
- In partnership with IAEA since the very beginning (1960s)
- Since 1995 ICTP is governed by Italian Government, UNESCO and the IAEA

- IAEA funding is partly used to support the programme of Joint IAEA-ICTP Workshops
- Activities focus on interdisciplinary applications of nuclear science and technology
- Since 2005 there have been 8 Joint IAEA-ICTP Workshops on Nuclear Structure and Decay Data

1st IAEA-ICTP NSDD Workshop, Trieste, 2005





IAEA-ICTP Workshop 2018, Trieste

Murray gave lectures and supervised both XUNDL compilation and ENSDF evaluation assignments over the 2 weeks of the workshop



Nuclear Data Sheets

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Nuclear Data Sheets for A=218

Balraj Singh ^{a,*,} M.S. Basunia ^{b,} Murray Martin ^{c,} E.A. McCutchan ^{d,} Indu Bala ^{e,} R. Caballero-Folch ^{f,} Rhiann Canavan ^{g, h,} Ritwika Chakrabarti ^{i,} A. Chekhovska ^{j,} M.M. Grindler ^{k,} Samra Kaim ^{l,} Debasmitta Kanjilal ^{m,} D. Kasperovych ^{n,} M.J. Kobra ^{o,} H. Koura ^{p,} Soumen Nandi ^{q,} Adina Olacel ^{r,} Abhilasha Singh ^{s,} B.P.E. Tee ^t



IAEA-ICTP Workshop 2018, Lectures

IAEA-ICTP Workshop 2018, snapshots



What did ICTP trainees have to say...

+91 98839 14829

~Soumen Nandi

Very sad news. Murray was really a good teacher and I learned lot from Murray. I was started a new work with Murray after our workshop. I really feel sorry for fay Martin also. Rest in Peace Murray

+33 6 68 46 61 20

~Abhi

Very sad news Vivian.. That was the best workshop of my PhD times and indeed we made good friends. That will be cherished forever. I met Murray at Oak Ridge in 2019 and discussed good times of that workshop. Rest in peach Murray!

14:30

+61 413 085 550

~Bryan Tee Pi-Ern

I learned a lot from Murray through the XUNDL exercise of 94Ru. His kind and humble personality made him one of the best mentors I've ever met. He is also a great friend, I have so much respect for him. Murray will be missed forever, may he Rest In Peace.

21:28

16 March 2022

+91 98699 00956

~Ritwika Chakrabarti

You

Dear IAEA-ICTP year 2018,
I hope this finds you all doing well.
I have some sad news unfortunately. Mu...

This is indeed sad news. My sincere condolences to his family. May he rest in peace. We had such a wonderful time in the workshop. Murray was a great teacher.

06:28

+34 649 14 91 57

~ForaCorruptes!

It is sad to see how some of our mentors and professors are leaving... Nice memories form Murray in ICTP. Rest in Peace!

06:40

+91 99902 34369

~INDU

Sad to hear this news, Murray was a great mentor, we have wonderful memories of him in ICTP, my condolences to his family, may he rest in peace!

07:41

Family



Murray and Fay had been married for 58 years. They met in 1959 when they were studying at McMaster University and got married in 1963. They have four children and five grandchildren.



Interests and passions

Murray was a talented tennis player and excelled in the senior's doubles category. He won numerous trophies over the years.

Murray was also very keen in education for all, and when the Oak Ridge Institute for Continued Learning (ORICL) was formed, he joined the organization and for many years served as chairman of the Curriculum Committee.

He also loved the arts, serving for many years on the board of the Oak Ridge Civic Ballet and attending countless concerts put on by the Oak Ridge Civic Music Association.

The screenshot displays the ITF profile for Murray J Martin, a USA player. The page is titled "Murray J Martin Seniors Tennis Doubles Overview". It shows his current ranking as 121 in the ITF Doubles 85+ category, with a career-high ranking of 106. The page includes navigation tabs for "SENIORS TENNIS", "SINGLES", "DOUBLES", and "MIXED DOUBLES", with "DOUBLES" selected. Other tabs include "OVERVIEW", "ACTIVITY", "YEAR END RANKINGS", "ITF POINTS BREAKDOWN", and "TITLES".

Ranking Category	Ranking
Current rankings	
ITF Doubles 85+ Ranking	121
Career-high rankings	
ITF Doubles Ranking (07 June 2021)	106

It's really a sad news for us. I have known Dr.Martin, Prof.Huo introduced him to me, in Canada meeting in 2005. He is a gentleman and very knowledge of nuclear structure, and give many helps for NSDD activities in China.Since then I also have studied his several fundamental publications about NSDD evaluations. So it's really a great loss in NSDD work.

Best regards
Huang Xiaolong

Dear Vivian and Friends,

This is a loss at many levels. I had the pleasure of interacting with Murray 7 years ago when I was first getting involved in this work. He was an excellent teacher and a gentle soul. My thoughts go out to his family and the many members of the Nuclear Data Community whose lives were touched by him, including most recently, Caroline Nesaraja. Please let me know if his family has identified any way that we can pay tribute to his life and work.

Lee Bernstein

Vivian:

Thank you for informing me of Murray's passing. He was a very gracious and decent person. His contribution to nuclear data was immense. Murray was an avid, world class tennis player to the end <https://www.itftennis.com/en/players/murray-j-martin/800116354/usa/vt/d/overview/>. His obituary is at <https://obituaries.neptunesociety.com/obituaries/brentwood-tn/murray-martin-10620694> where you can leave a message. He will be missed.

Rick Firestone

Dear Vivian,

A sad news indeed. He was a grandmaster of nuclear data world. His unassuming and simple nature always kept him accessible to students and colleagues. He will be missed and remembered always.

Ashok

Thank you for informing us. A very sad news, indeed. We had the chance here to meet him and to enjoy his company, but unfortunately not to work directly with him. In my memory, he will stay in the Pantheon of beta decay with still-alive Ancient Gods such as Norwood Gove. I preciously keep an old printed version of their famous article on log-f tables that they kindly signed few years ago when I visited Oak Ridge.

With kind regards,
Xavier

Dear Vivian,

I am deeply saddened to hear this news.

I remember Murray from my earliest days at ORNL as an excellent physicist and the perfect gentleman scientist.

An integral part of NDP (with Yurdnur Akovali, S Raman, Mary Ruth Lay as I knew it then), he was an incredibly kind person, very generous with his time and always ready for a discussion.

His passing marks yet another irreplaceable loss to the community.

Mohini

Indeed, a great evaluator and person!

May God rest him in peace.

Ninel Nica

It's really a sad news for us. I have known Dr. Martin, Prof. Huo introduced him to me, in Canada meeting in 2005. He is a gentleman and very knowledge of nuclear structure, and give many helps for NSDD activities in China. Since then I also have studied his several fundamental publications about NSDD evaluations. So it's really a great loss in NSDD work.

Best regards
Huang Xiaolong

Dear Vivian and Friends,

This is a loss at many levels. I had the pleasure of interacting with Murray 7 years ago when I was first getting involved in the work. He was an excellent teacher and a gentle soul. My thoughts go to his family and the many members of the Nuclear Data Community whose lives were touched by his passing. I don't know if you know his life and

Murray's legacy will live on and will be appreciated by many evaluators to come

He will be dearly missed!

Ashok

Thank you for informing us. A very sad news, indeed. We had the chance here to meet him and to enjoy his company, but unfortunately not to work directly with him. In my memory, he will stay in the Pantheon of beta decay with still-alive Ancient Gods such as Norwood Gove. I preciously keep an old printed version of their famous article on log-f tables that they kindly signed few years ago when I visited Oak Ridge.

With kind regards,
Xavier

Dear Vivian,
I am deeply saddened to hear this news. I remember Murray from my earliest days at ORNL as a gentleman scientist. An integral part of NDP (with Yurdnur Akovali, S Ramesh, and others at the time), he was an incredibly kind person, very gentle in discussion. His passing marks yet another irreplaceable loss to the community. I am sure he will be missed by many. I am sure you know his life and work. His passing is a great loss to the community. His passing marks yet another irreplaceable loss to the community. I am sure he will be missed by many. I am sure you know his life and work. His passing is a great loss to the community.

Indeed, a great evaluator

May God rest him in peace.

Ninel Nica

...cent person. His
...his player to the end
[overview/](#). His
[/murray-martin-](#)

...a world. His
...e to students and

Contributions from:

Jagdish Tuli

Balraj Singh

Hideki Imura

Vivian Dimitriou