In Memory of Shawn Bishop

In Memory of Shawn Bishop





from Russbach 2013 webpage link







Member of the Helmholtz Association search I www.hzdr.de | g.rugel@hzdr.de

11th Symposium on Nuclei in the Cosmos (NIC XI) Heidelberg, 19-23 July 2010

Member of the Helmholtz Association

DIRECT MEASUREMENT OF THE ²¹Na(p,γ)²²Mg RESONANT REACTION RATE IN NOVA NUCLEOSYNTHESIS

by

Shawn Bishop

B.Sc. Hon., McMaster University, 1995

M.Sc., University of Victoria, 1998

2003 PhD Shawn Bishop

Member of the Helmholtz Association

APPROVAL

| Name: | Shawn Bishop | | | | | | | | | |
|----------------------|--|--|--|--|--|--|--|--|--|--|
| Degree: | Doctor of Philosophy | | | | | | | | | |
| Title of Thesis: | Direct Measurement of the 21 Na $(p,\gamma)^{22}$ Mg Resonant Reaction Rate in Nova Nucleosynthesis | | | | | | | | | |
| Examining Committee: | Dr. Jeff Sonier, Department of Physics, Simon Fraser University (Chair) | | | | | | | | | |
| | Dr. John D'Auria, Department of Chemistry, Simon | | | | | | | | | |
| | Fraser University | | | | | | | | | |
| | Dr. Gordon Ball, Research Scientist, TRIUMF | | | | | | | | | |
| | Dr. Lothar Buchmann, Research Scientist, TRIUMF | | | | | | | | | |
| | Dr. Colin Jones, Department of Chemistry, Simon Fraser University | | | | | | | | | |
| | Dr. Peter Parker, Department of Physics, Yale University | | | | | | | | | |
| | Dr. Howard Trottier, Department of Physics, Simon Fraser University | | | | | | | | | |
| Date Approved: | August 6, 2003 | | | | | | | | | |

ii

August 6, 2003 PhD Shawn Bishop

To my family and closest friends, who are the brightest stars in my life. Shine on.

Programm der Vorstellungsvorträge

(W2-Professur für Experimentalphysik, FR Nukleare Astrophysik) Fax: 089/289-12435

e-mail: reiner.kruecken@ph.tum.de

21. März 2007

Montag, 30. April 2007

 14 Uhr (im Rahmen des Seminars Physik der starken Wechselwirkung): Seminarraum Theorie PH 3344
Dr. Shawn Bishop (RIKEN National Laboratory, Japan)
"Discussion of 8B Elastic Scattering on Pb, and Liquid H and He Targets and Cryogenic Detectors"

Title for Shawn's interview for W2-professorship April 16th – May 2nd

Member of the Helmholtz Association

HOME | AKTUELLES | PERSONEN | FORSCHUNG | STUDIUM | EINRICHTUNGEN | INTERN | SUCHE | IMPRESSUM

Physik Department

AKTUELLES

Home/Aktuelles/Neuigkeiten/2008/2008-10-22/

- Aktuelles
 - Neuigkeiten
 - ▶ 2008
 - 2008-10-22
 - 2008-10-22
 - 2008-10-01
 - ▶ 2008-10-01
 - 2008-10-01
 - 2008-09-29
 - 2008-09-1
 - 2008-07-17
 - E 2008-07-17
 - 2008-07-17
 - 2008-07-10
 - E 2008-07-1
 - 2008-07-1
 - 2008-06-27
 - 2008-06-04
 - E 2008-04-28

Prof. Shawn Bishop zum Professor für Experimentalphysik, Fachrichtung "Nuclear Astrophysics", ernannt

Anouncement TUM; 2008-10-22

圕

Poll: Astro/AMS Group Meeting

Shawn Bishop has created this poll.

"The inaugural meeting of the fish professor with his band of merry men and women.

Please choose those time slots for which you *can* attend. Multiple time slots on the *same* day can be selected."

| | December 2008 | | | | | | | | | | | | | | | |
|---------------|-----------------------------|------------------------------|-------------------------------|-------------------------------|-----|-----------------------------|------------------------------|-------------------------------|-------------------------------|-----|-----------------------------|------------------------------|-------------------------------|-------------------------------|-----|-----------------------------|
| | Mon 8 | | | | | Tue 9 | | | | | Thu 11 | | | | | |
| | 9:00 AM - 10:00 AM | 10:00 AM - 11:00 AM | 1:00 PM - 2:00 PM | 2:00 PM - 3:00 PM | 15- | 9:00 AM - 10:00 AM | 10:00 AM - 11:00 AM | 1:00 PM - 2:00 PM | 2:00 PM - 3:00 PM | 15- | 9:00 AM - 10:00 AM | 10:00 AM - 11:00 AM | 1:00 PM - 2:00 PM | 2:00 PM - 3:00 PM | 15- | 9:00 AM - 10:00 AM |
| Shawn Bishop | OK | OK | ок | ок | ок | OK | ок | ОК | OK | ок | ок | ок | ок | ОК | OK | ОК |
| Iris Dillmann | OK | ок | ок | | | ОК | ок | ок | | | | | | | | |
| Gunther | OK | ок | ОК | ок | ок | ок | ОК | ОК | OK | ОК | | | | | | |
| Johannes | | | | | | OK | ок | ОК | ок | ок | | ок | ОК | ОК | ок | ок |
| Anuj | | ок | ок | ок | ок | | ок | | | | | | ок | ок | | |
| Georg | | | ок | ок | ок | | ок | ОК | ок | ок | | | | | | |
| Thomas | | | ок | | | | ОК | | | ок | ОК | OK | ОК | ок | | OK |
| Discus Fish | | | | | ок | | | | | OK | | | | | OK | |
| our name | Г | Г | Г | Г | Г | Г | Г | Г | Г | Г | Г | Γ | Г | Г | Г | Г |
| Count | 3 | 4 | 6 | 4 | 5 | 4 | 7 | 5 | 4 | 6 | 2 | 3 | 4 | 4 | 3 | 3 |

Poll for meeting with Ramon Egli (Microfossil/Bacteria idea) Dec 2008

Member of the Helmholtz Association

Nuclear Astrophysics at TUM

PSI Institute Seminar Jan. 14, 2009

Prof. Shawn Bishop

1st talk at the institute seminar E12 PSI ("Palawer Schwerer Ionen"); Chair: Reiner Krücken (now Head of TRIUMF's Science Division)

Normally, the dead don't talk. But perhaps they leave us messages.

Prof. Shawn Bishop

56

1st talk at the institute seminar E12 PSI ("Palawer Schwerer Ionen"); Chair: Reiner Krücken (now Head of TRIUMF's Science Division)

We are star-stuff. -- Carl Sagan

NUCLEAR ASTROPHYSICS

SS 2009: Nuclear Astrophysics Lecture 1 by Shawn Bishop

Nuclear Astrophysics II

Thurs. July 30, 2011 Prof. Shawn Bishop, Office 2013, Ex. 12437 shawn.bishop@ph.tum.de

http://www.nucastro.ph.tum.de/

SS 2011: Nuclear Astrophysics II by Shawn Bishop

Member of the Helmholtz Association

2011 PhD student Peter Ludwig sorting sediment samples

After PhD exam 2015-09-25

Member of the Helmholtz Association Georg Rugel | Institute of Ion Beam Physics and Materials Research I www.hzdr.de | g.rugel@hzdr.de

Page 20

2011 Students at E12 TUM

PhD student

emens Heritzius

PostDoc Jose Manuel Gómez Guzmán

Georg Rugel

https://academicminute.org/2016/11/shawn-bishop-tu-munchen-supernova-ashes-and-an-extinction-event/ academic minute 11/15/2016 12:01

Massive stars are the cosmic engines of nucleosynthesis – being responsible for the production of chemical elements from carbon up to iron. The end of their existence is a cataclysmic explosion called a "core collapse supernova", which results in the ejection of about 10 solar masses of material into the interstellar medium carrying freshly synthesized elements, including a radioactive isotope of iron: so-called iron-60. Iron-60 has no production sources on Earth. Therefore, iron-60's presence on Earth, if ever found, would be direct evidence of an Earthsupernova interaction.

Residing in the sediments of the Earth's oceans are so-called magnetotactic bacteria. These bacteria intracellularly produce tiny magnetic crystals of magnetite called magnetosomes. The bacteria obtain the iron for making these crystals from nano-sized rust particles which constantly rain into the Earth's oceans via the terrestrial iron-cycle. When the bacteria die, these magnetite crystals they produced remain embedded within the sediments and are subsequently called magnetofossils.

Using an experimental technique called "accelerator mass spectrometry", my research colleagues and I were able to find live atoms of iron-60 within magnetofossils extracted from two Pacific Ocean sediment drill cores. We have found that the iron-60 signal begins around about 2.6 Myr ago, at the plio-pleistocene boundary, which also coincides with a known marine extinction event. And so we have on our hands a cosmic detective mystery: could it be that this supernova was in some way at least partially responsible for this extinction event? Time may tell.

Atacama Desert Expedition, Dec. 2016

A New Search for Supernova Actinides

Rewriting Nuclear Physics textbooks

Pisa (Italy), July 22nd – 26th, 2019

cea

Lecture by: Shawn Bishop

Silde 45

Shawn Bishop : Reach for the stars by digging in the dirt

Shawn Bishop mit Jol Thoms und Iuliana-Madalina Stanciu.

14. Dezember 2018 · 🕄

My merry band of sister and brothers! After 5 days in the desert, we feel like Queen and Kings! 嬎 😁

Lecture by: Shawn Bishop

Silde 46

Shawn Bishop : Reach for the stars by digging in the dirt

cea

Beyond this point, not for public consumption

My apologies.....

December 2019 Chalk dropt during lecture Surgery 16.12.19 Glioblastoma, type 4 Radio, Chemo, EM-Wave therapy.... For more see: Facebook

His question: "Are Core Collapse Supernova the origin of r-process nuclei?" Being convinced that his latest results will be a major break though for the field, he was working until the last week of his life to get things published.

✤ last Tuesday 19.10.2021

MLL October 2021 @ LMU Slide from Roman Gernhäuser, TUM

111

0

Shawn Bishop 1. Januar 2020 - @ appy 2020, everyone! - mit Elisa Resconi in Müncher 00 42 🖒 Gefällt mir Sarah Bishop Happy new yearl 👩 1 Getält mir 21. Brian Laufman Happy New Year, Shawn 0 Gefalt mir 21. Maria Julia Orgeira 00 Gefalt mir 21. Salko Shinohara Have a good ti P

🕁 😰 Sarah Bishop Aurora Turnino Happy 202011

Gefallt mir 23 Giantuca Pizzone All the Best!

Ð Q

oring it on ... ioioi Gefällt mir 39 Wo. Toshiyuki Kubo FYI. This morning on TV here, there

3

was a report on oncolytic virus therapy applied to glioblastoma (GBM). They said it was successful. 0 Gefällt mir 39 Wo. Theresa Broszkowski Just wanted to say that this is a wonderful photo 01 Gefällt mir 39 Wo.

Shawn Bishop Theresa Broszkowski Thank you! you can just see the 1st

New Year 2020

Bishop, Shawn 22.10.1971 G21b stationär (NCH) Therapie am 05.05.2021 10:00 UI Lomustin p.o. 200,000 mg IMUM arge/ Haltbarkeit A ung: Nicht über 25°C lagern! ACHTUNG Kühl lagern

Shawn Bishop 26. Dezember 2019 - 3 Doctor approved, by the way. Prost!

Plaffenberge

Member of the Helmholtz Association and Materials Research I www.hzdr.de | g.rugel@hzdr.de

Member of the Helmholtz Association

Die Technische Universität München trauert um ihr Kollegiumsmitglied

Professor Shawn Bishop, Ph. D.

Extraordinarius für Experimentalphysik, Nukleare Astrophysik * 22. Oktober 1971 † 19. Oktober 2021

Professor Bishop hat sich mit der Erforschung und Messung nuklearer Reaktionen international einen Namen gemacht. Er befasste sich mit der Untersuchung astrophysikalischer Fragestellungen und der chemischen Analyse der Evolution des Universums. Seine Arbeitsgruppe war an der Entdeckung von Spuren von Supernova-Eisen in Gesteinsmaterial beteiligt. Viel zu früh verlieren wir mit ihm einen hochbegabten Wissenschaftler und Hochschullehrer, den wir in lebendiger Erinnerung behalten werden.

> Die Technische Universität München wird ihrem Kollegiumsmitglied Shawn Bishop ein ehrendes Andenken bewahren.

> > Hochschulpräsidium und Professorenkollegium Professor Thomas F. Hofmann Präsident

Süddeutsche Zeitung, 2021

Member of the Helmholtz Association

To my family and closest friends, who are the brightest stars in my life. Shine on.

