Angela Bonaccorso
INFN PISA
Istituto Nazionale di Fisica Nucleare
Sezione di Pisa

Tribute to Sydney Galès

Orsay, 15th December 2025

M. Sydney GALES

Né le 1 novembre 1943

Décédé le vendredi 29 novembre 2024 à l'âge de 81 ans

Two aspects of Sydney's personality worth celebrating:

1) Jewish tradition: The Talmud (the central text of Rabbinic Judaism) says that dying on a date close to your birthday is considered special and ‘perfect’.

It’s believed that Moses died on his 120th birthday and that his life was complete because it started and ended on the same day – like a perfect circle. The Jewish people believe that dying on your birthday or close to it, means ***you have achieved the mission you were born to achieve,*** and that’s something worth celebrating.

2) **The Work You Do, the Person You Are**

by Toni Morrison, (Literature Nobel laureate 1993)

on “The New Yorker” (May 29, 2017)

You make the job; it doesn’t make you.

Chair of NuPPEC: a home for the European Nuclear Physics Community

- October 1992 a memorable meeting was held in Orsay to discuss the report of the Bohigas committee on a Theoretical Nuclear Physics Center in Europe, similar to the INT Seattle.
- The Inaugural Symposium of ECT* was held in September 1993.

ECT*

EUROPEAN CENTRE FOR THEORETICAL STUDIES
IN NUCLEAR PHYSICS AND RELATED AREAS
TRENTO, ITALY

Institutional Member of the European Science Foundation Associated Committee NuPECC

Landscape at Valle di Cembra, near Trento ("Welsch pag"), watercolour, painted by A. Dürer on one of his trips to Venice (1495?) - (1505?).

Courtesy of the Ashmolean Museum, University of Oxford.

INTERNATIONAL WORKSHOP ON REACTION MECHANISMS WITH EXOTIC NUCLEI

Trento, February 19th - March 2nd, 2001

MAIN TOPICS :

The purpose of the workshop is to link the understanding of reaction mechanisms to the structure of exotic nuclei. Much work has already been done but it is important to propose new experiments and improvements in present theoretical approaches. We will discuss:

Experimental techniques for inclusive and exclusive reactions;
Semiclassical and quantum mechanical theories of elastic and inelastic breakup;
Spectroscopic studies with RIBs;
Elastic and inelastic scattering and optical potential extraction;
Coulomb breakup, nuclear-Coulomb interference, higher order effects ;
Transfer to bound states and to the continuum;
Multinucleon breakup;
Fusion with halo nuclei;
Multipole transition moments;
Charge exchange reactions;
Very low energy (p,γ) reactions of astrophysical interest.

PARTICIPANTS INCLUDE :

N. Alamanos (*Gif sur Yvette*), G. F. Bertsch (*Seattle*), B. A. Brown (*MSU*), R. A. Broglia (*Milano*), F. Carstoiu (*Bucharest*), P. Chomaz (*GANIL*), M. Di Toro (*Catania*), S. Fortier (*Orsay*), E. Gadioli (*Milano*), P. Genuel (*GSI*), T. Glasmacher (*MSU*), R.C. Johnson (*Surrey*), B. Jonson (*Chalmers*), W.G. Lynch (*MSU*), T. Motobayashi (*RIKEN*), G. Münzenberg (*GSI*), N. Orr (*Caen*), J.-A. Scarpaci (*Orsay*), B. M. Sherrill (*MSU*), I. J. Thompson (*Surrey*), Y. Suzuki (*Niigata*), N. Takigawa (*Sendai*), I.J. Thompson (*Surrey*), N. Vinh Mau (*Orsay*), A. Vitturi (*Padova*), W. Von Oertzen (*Berlin*), K. Yabana (*Tsukuba*)

ORGANIZERS OF THE WORKSHOP :

A. Bonaccorso (*INFN, Pisa*) bonaccorso@pi.infn.it
D. M. Brink (*Oxford*) brink@sns.it
P. G. Hansen (*MSU*) hansen@nscl.msu.edu
R. Galès (*IPN, Orsay*) gales@ipno.in2p3.fr

Director: Prof. Rudi Mößbauer (Trento)
Scientific Secretary: Prof. Renzo Leonardi (Trento)

The ECT* is sponsored by the "Istituto Trentino di Cultura" in collaboration with the "Assessorato alla Cultura" (Provincia Autonoma di Trento), by funding agencies of EU Member and Associated States and with the support of the Department of Physics of the University of Trento.

Participation in the ECT* scientific programs of researchers of the EU Member and Associated States is partially financed by the EU Human Potential Program to provide access to Major Research Infrastructures (STATE projects; see http://ect.it/NEWS/Spq.html). Postdoctoral researchers are encouraged to apply for individual EU fellowships.

For further information please contact: Cristina Costa or Ines Campo - ECT* Secretariat - Villa Tambosi - Strada delle Tabarelle N. 286 - 38050 Villazzano (Trento) - Italy
Tel. (+39-0461) 314-730 or -721 Fax: (+39-0461) 935007, e-mail: ectstar@ect.it or visit http://www.ect.it

ECT*

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Castello di Trento ("Trint"), watercolour, 19.8 x 27.7, painted by A. Dürer on his way back from Venice (1495).

C. British Museum, London.

International Workshop on
SPECTROSCOPIC FACTORS

Dedicated to Sydney Galès 60th birthday

Trento (Italy), 2nd-12th March 2004

PURPOSE : The purpose of the workshop is to discuss the short and long range aspects of nuclear correlations under the joint heading of "spectroscopic factors". The motivation for bringing the communities that study lepton-induced and hadron-induced reactions together, lies in recent progress in the theory of both areas but also in the appearance of new experimental techniques in the areas of high-energy electron scattering and reactions of radioactive beams that may lead to new and accurate information on long- and short-range correlation effects.

TOPICS:

Shell model and spectroscopic factors, single particle and cluster degrees of freedom, short and long range correlations, spectral functions, transfer and breakup reactions with stable and exotic nuclear beams, nucleon knockout with electromagnetic and nuclear probes, nuclear reaction theories, coupled channels, DWBA, eikonal and semiclassical models.

PARTICIPANTS INCLUDE:

A. Antonov (*Sofia*), T. Aumann (*GSI*), C. Barbieri (*TRIUMF*), G. Baur (*Basel*), D. Beaumel (*Orsay*), O. Benhar (*Roma1*), C. Bertulani (*MSU*), Y. Blumenfeld (*Orsay*), A. Bracco (*Milano*), D. M. Brink (*Oxford*), R. Broglia (*Milano*), B. A. Brown (*MSU*), F. Capuzzello (*Catania*), Bucharest, W. Catford (*Surrey*), C. Cioffi degli Atti (*Perugia*), A. Cunsolo (*Catania*), G. De Angelis (*Legnaro*), W. H. Dickhoff (*Washington*), A. Dieperink (*KVI*), H. Emling (*GSI*), J. Escher (*Livermore*), S. Fortier (*Orsay*), M. Freer (*Birmingham*), C. Giusti (*Pavia*), T. Glasmacher (*MSU*), M. N. Harakeh (*KVI*), E. Jans (*NIKHEF*), R. Janssens (*Argonne*), B. Jonson (*Göteborg*), I.J. Kelly (*Maryland*), J. J. Kolata (*Notre Dame*), A. A. Korsheninnikov (*RIKEN*), H. Langevin-Joliot (*Orsay*), E. Moya de Guerra (*Madrid*), T. Nakamura (*Tokyo*), G. Orlandini (*Trento*), N. A. Orr (*LPC*), A. Polls (*Barcellona*), P. Roussel Chomaz (*GANIL*), J. Ryckebusch (*Ghent*) , H. Scheit (*Heidelberg*), J. P. Schiffer (*Argonne*), P. Schuck (*Orsay*), B. M. Sherrill (*MSU*), S. Shimura (*Tokyo*), R. Shyam (*Calcutta*), I. Sick (*Basel*), C. Signorini (*Padova*), O. Sorlin (*Orsay*), M. Strikman (*PennState*), I.A. Tostevin (*Surrey*), L. Trache (*Texas AM*), S. Typel (*GSI*), J. S. Vaagen (*Bergen*), N. Vinh Mau (*Orsay*), W. von Oertzen (*Berlin*), M. Zhalov (*St. Petersburg*), J. W. Watson (*Kent*).

ORGANIZERS OF THE WORKSHOP:

Angela Bonaccorso (Coordinator), bonaccorso@pi.infn.it bonac@df.unipi.it
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Lotuk Lapikás, lotuk@nikhef.nl

Director of the ECT*: Prof. W. Weise (Trento and TU Munich)
Scientific Secretary: Prof. R. Leonardi (Trento)

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Tel. (+39-0461) 314-730 or -721 Fax: (+39-0461) 935007, e-mail: ectstar@ect.it or visit http://www.ect.it

Personal

- 1988: David Brink at MSU discusses “Transfer to the Continuum” experimental spectra with Sydney and Gary Crawley.

- Sept. 1989 GANIL experiment.
- Sept 1990 NSCL , Michigan State University, USA.
- 1991 IPN, Orsay, France.
- April 1992, IPN, Orsay, Jury PhD Isabelle Lhenry.
- 1994/95 Orsay sabbatical in Sydney’s group, started a collaboration with Nicole Vinh Mau.
- 1990-2000 Various workshops to promote the EXCYT-MAGNEX, project at the LNS, Catania.

- 2001 "Reaction Mechanisms with Exotic Nuclei", 19-Feb/2-Mar 2001. ECT*, Trento, Italy.
- (First DREB 1999 at MSU).

- 2004 ECT*, Trento: Spectroscopic Factors Workshop, Sydney’s 60th birthday celebration.

Sydney's longstanding research interest: RESONANCES Collective vs. Single Particle

51 HIGH ENERGY SINGLE PARTICLE STATES IN THE CONTINUUM 831

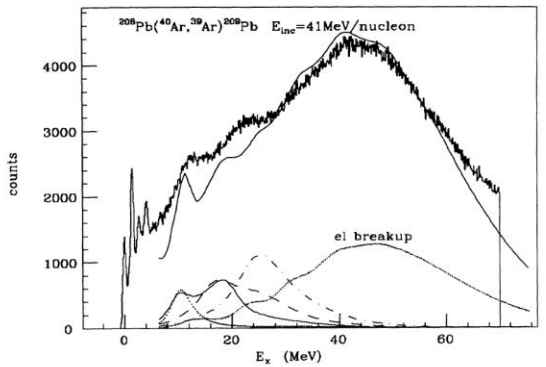

FIG. 5. Inclusive spectrum of the reaction ^{208}Pb(^{40}Ar,^{39}Ar)^{209}Pb at E_{inc} = 41 MeV/nucleon [10]. The solid curve superimposed onto the experimental spectrum is the result of our calculation for the cross section due to transfer from the $1d_{3/2}$ initial state in Ar. In the lower part of the figure the dotted curve shows the contribution of the $1k_{17/2}$ final state. The solid curve is the total contribution due to $l_f = 8$. The second peak is due to the $1k_{15/2}$ state. The dashed line is the contribution of $l_f = 9$ and the dot-dashed line is for $l_f = 10$. The tightly dotted curve is the elastic breakup.

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Role of the breakup process in the ^{48}Ca(^{20}Ne, ^{19}Ne n) reaction at 48A MeV

H. Laurent,[1] J. A. Scarpaci,[1] D. Beaumel,[1] Y. Blumenfeld,[1] S. Fortier,[1] N. Frascaria,[1] S. Galès,[1] J. P. Garron,[1] J. Guillot,[1] I. Lhenry,[1] J. C. Roynette,[1] J. M. Maison,[1] T. Suomijärvi,[1] A. Gillibert,[2] P. Roussel-Chomaz,[3] and A. Van der Woude[4]

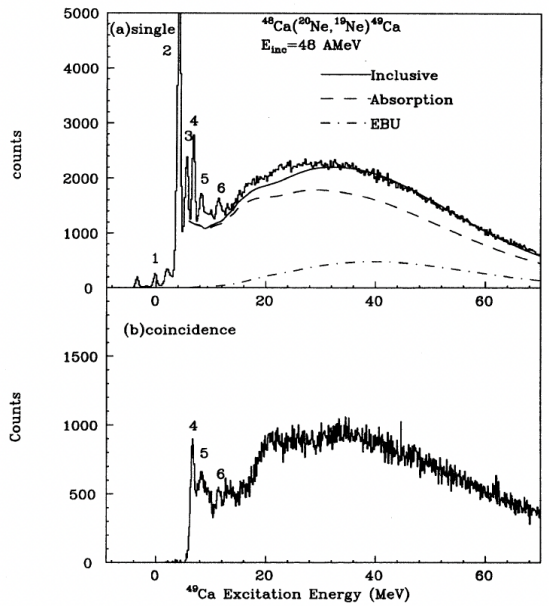

FIG. 2. Excitation spectra in the ^{48}Ca(^{20}Ne,^{19}Ne)^{49}Ca reaction at 48A MeV. (a) Inclusive spectrum. (b) Neutron coincident spectrum corrected for the neutron efficiencies and summed over the backward detectors (see text).

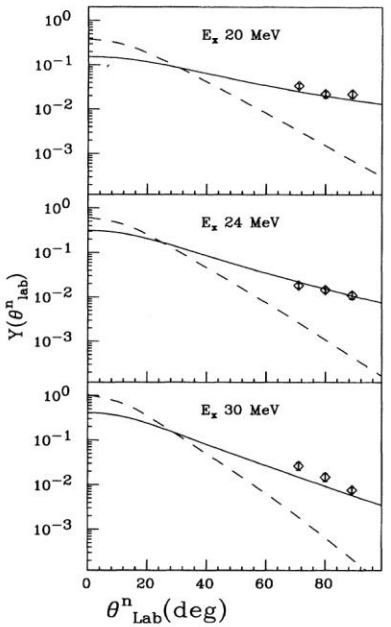

FIG. 11. Angular distribution in the laboratory frame for neutron transitions to the ^{48}Ca ground state, for different excitation energies in ^{49}Ca (see text).

Dans sa vie privée comme dans sa vie publique, Sydney a été un grand homme. Il manquera à nous tous, et personne ne l'oubliera.