

**CAREER AND TRAINING HISTORY**

**NAME:** Bassam Dally

**POSITION:** Professor/Deputy Director of CET

**ADDRESS:** School of Mechanical Engineering  
The University of Adelaide  
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**EDUCATION**

**1998** Doctor of Philosophy (Combustion)  
University of Sydney, Australia

**1988** Bachelor of Science in Mechanical Engineering  
Technion, Haifa, Israel

**HONOURS AND AWARDS**

**2016** SA Energy Professional of the Year 2016, Australian Institute of Energy

**2011** Opportunity South Australia, Innovation Showcase, winner of Best Pitch award

**2010** Korean Institute of Machinery and Materials, sponsored speaking tour of South Korea (4 talks)

**2009** Austrade - Visiting Research Fellowship (Speaking tour: Stuttgart, Darmstadt, Aachen and Delft)

**2006** Australian academy of Science travel grant to North America (Sandia National Labs and Stanford)

**2006** Visiting Fellow at CRF, Sandia National Laboratories, Livermore, CA

**2006** Visiting Fellow at ITM, RWTH, Aachen, Germany

**2005** Best Paper Award (co-author) 4th Australian Conf. on Laser Diag. in Fluid Mechanics and Comb.

**2002** Visiting Fellow at ITM, RWTH, Aachen, Germany

**2001** Visiting Fellow at CRF, Sandia National Laboratories, Livermore, CA

**2001** National Engineering Innovation Competition, Re-Engineering Australia Forum (team award)

**1998** DR Warren Travelling Fellowship of the Australian and New Zealand Section of the Comb. Inst.

**1994** Australian Postgraduate Award

**PROFESSIONAL APPOINTMENTS**

**2010-2104** **Head**  
School of Mechanical Engineering, The University of Adelaide

**2009-present** **Deputy Director**  
Centre for Energy Technology, The University of Adelaide

**2013-present** **Professor**  
School of Mechanical Engineering, The University of Adelaide

**2008-2013** **Associate Professor Level D**  
School of Mechanical Engineering, The University of Adelaide

**2008** **Acting Head (7 months)**  
School of Mechanical Engineering, The University of Adelaide

**2003** **Acting Head (6 months)**  
School of Mechanical Engineering, The University of Adelaide

**2002-2008** **Senior Lecturer Level C**  
School of Mechanical Engineering, The University of Adelaide

**2001-2010** **Deputy Head of School**  
School of Mechanical Engineering, The University of Adelaide

**1998-2002** **Lecturer Level B**  
School of Mechanical Engineering, The University of Adelaide

**1998** **Research Assistant**  
School of Chemical Engineering, The University of Sydney

**1992-1998** **University Tutor and Demonstrator**  
School of Mechanical Engineering, The University of Sydney

**1991-1994** **Research Assistant**

School of Mechanical Engineering, The University of Sydney

**TEACHING AND TRAINING, INCLUDING SUPERVISION****PROFESSIONAL DEVELOPMENT IN TEACHING**

2003	Effective supervision
1999	Teaching at University, ACUE

**CURRICULUM DEVELOPMENT**

2010-2014	CHAIR – SCHOOL CURRICULUM COMMITTEE
2005-2007	CHAIR – THERMO-FLUIDS TEACHING GROUP SUB COMMITTEE
2008-2014	MEMBER – SUSTAINABLE ENERGY TEACHING GROUP SUB-COMMITTEE

**COURSE, SUBJECT AND TOPIC COORDINATION**

1999-2005	4107 Air Conditioning (developed, taught and coordinated)
1999-2018	3102 Heat Transfer and Thermodynamics (developed, taught and coordinated)
2009-2018	7070 Heat Transfer and Thermodynamics (developed, taught and coordinated)
1999-2004	2021 Thermodynamics 1 (adopted, taught and coordinated)
2001-2018	4112 Combustion Technology and Emission Control (developed 20%, taught & coordinated)
2001-2018	7021 Combustion Technology and Emission Control (developed 20%, taught & coordinated)
2005-2008	4109 Automotive Comb. Tech., Power Train and NVH (developed, taught & coordinated)
2007-2009	4111 CFD for Engineering Applications (developed and coordinated)

**RESEARCH, SCHOLARSHIP AND CREATIVE ACTIVITY****RESEARCH FUNDING**

CAREER TOTAL: \$18,250,000 (5 ARC DISCOVERY (\$2.72M), 3 ARC LINKAGE (\$0.88M), 5 ARC LIEF (\$3.08M) OTHER (\$11.57M)

**SCIENTIFIC PUBLICATIONS**

Career Total:	132 journal papers, 151 conference papers, 3 review papers and 13 invited talks.
Scopus	3340 citations and h-index = 30
Google Scholar	4891 citations, h-index = 34 and i10-index = 95 ( <a href="#">details</a> )

**INVITED CONFERENCE PRESENTATIONS**

2016	Nathan, G.J., <b>Dally, B.B.</b> , Alwahabi, Z.T., van Eyk, P.J., Jafarian, M., and Ashman, P.J., Proceedings of the Combustion Institute, "Research challenges in combustion and gasification arising from emerging technologies employing directly irradiated concentrating solar thermal radiation", Proceedings of the Combustion Institute, 2017; 36(2):2055-2074
2014	Nathan, G.J., Alwahabi, Z.T., <b>Dally, B.B.</b> , Medwell, P.R., Arjomandi, M., Sun, Z., Lau, T.C. and van Eyk, P., "Optics and Photonics in Solar Thermal Energy Technologies", Optical Instrumentation for Energy and Environmental Applications Conference, Canberra Australia, December 2-5, 2014
2011	<b>Dally, B.B.</b> , Birzer, CH, and Medwell, PR, "Structure of Turbulent Jets Flames under Hot Coflow Conditions", Invited Keynote, Proceedings of the Australian Combustion Symposium, Nov 29 to Dec 1, 2011, The University of Newcastle
2011	Medwell, PR, Chan, QN, Alwahabi, ZT, <b>Dally, B.B.</b> and Nathan, GJ, "Temperature measurement in particle-laden reacting flows", Invited Keynote, Sixth Australian Conference on Laser Diagnostics in Fluid Mechanics and Combustion, Canberra, Australia, 5–7 December, 2011
2010	Nathan, G.J., Kalt, P.A.M., Alwahabi, Z.T., <b>Dally, B.B.</b> , Medwell, P.R., Chan, Q.N., (2010), "Recent advances in measurement of turbulent reacting flows in which heat transfer is dominated by radiation" 14th International heat Transfer conference, IHTC14, 2010, pp 775-793
2010	<b>Dally, B.B.</b> , "Mixing of Reacting Jets in Hot Coflow", Int. Conf. on Jets, Wakes and Separated Flows, ICJWSF-2010 Sept. 27-30, 2010, Cincinnati, Ohio USA
2009	Nathan, G.J., Alwahabi, Z.T., <b>Dally, B.B.</b> , Medwell, P.R. and Chan, Q.N. (2009), 'Progress and challenges in experimental investigations of realistic turbulent reacting flows', Invited Lecture, Proceedings of the Australian Combustion Symposium December 2-4, 2009, The University of Queensland.

- 2005 **Dally, B.B.**, On the Transition to MILD Combustion: Experimental and Computational Study, Flameless Combustion Workshop, Lund Sweden, June 2005
- 2003 Nathan, GJ and **Dally, B.B.**, Challenges and Progress in the Modelling of Heat Transfer and NOx Emissions from Rotary Kiln Flames Involving Unsteady Flows, Third International Conference on CFD in the Minerals and Process Industries, CSIRO, Melbourne, Australia, December 2003

## RESEARCH TRAINING

### Research Fellows Supervision

2014-	Dr Alfonso Chincchi	2012-	Dr Zhiwei Sun
2011-2012	Dr Cristian Birzer	2011-2012	Dr Qing (Shaun) Chan
2007-2010	Dr Paul Medwell	2009-2011	Dr Peter Kalt

## COLLABORATIONS

**Dr Robert Barlow** from Sandia National Laboratories in the US, **Prof Jamie Mi** from Peking University in China, **Prof Heinz Pitsch** from RWTH University in Germany, **Dr Alesandro Parente** from University of Pisa in Italy, **Dr Mattias Ihme** from the University of Michigan in the US and **Dr Sung Hoon Shim** from Korean Institute for Machinery and Materials, South Korea. While nationally my collaboration extends to the **Prof Michael Brear** from the University of Melbourne, **Prof Assaad Masri** from the University of Sydney, **A/Prof Evatt Hawkes** from the University of New South Wales, **Prof Alexander Klimenko** from the University of Queensland, **Prof Dongke Zhang** from the University of Western Australia, and **Prof Julio Soria** and **A/Prof Damon Honnery** from Monash University among others.

## REFEREEING OF PAPERS SUBMITTED TO CONFERENCES

Biennial ANZ Symposium on Combustion  
 Biennial International Symposium on Combustion  
 Australasian Fluid Mechanics Conference  
 Asia-Pacific Conference on Combustion  
 Australian Conference on Laser Diagnostics in Fluid Mechanics and Combustion  
 CHEMECA

## REFEREEING OF PAPERS SUBMITTED TO JOURNALS

Combustion and Flame, Progress in Energy and Combustion Science, Combustion Science and Technology, Energy and Fuel, Combustion, Theory and Modelling, International Journal of Heat Transfer, Fuel, Experimental Thermal and Fluid Science, International Journal of Hydrogen Energy, International Journal of Thermal Sciences, Journal of Enhanced Heat Transfer,

## REFEREEING OF GRANT AND FELLOWSHIP APPLICATIONS

Australian Research Council of Australia  
 Dutch Funding Agency STW  
 European Research Council  
 U.S. Department of Energy, Office of Sciences  
 Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT) – Chile  
 Natural Science and Engineering – Research Council of Canada

## EDITORIAL PUBLICATIONS

Guest Editor: Special edition of "Experimental, Thermal and Fluid Sciences Journal"  
 Volume 27 (5), May 2003

Proceedings Editor: Fifth Asia Pacific Conference on Combustion 2005  
 The 4th Australian Conf. on Laser Diagnostics in Fluid Mechanics and Combustion, 2005  
 Fourteenth Australasian Fluid Mechanics Conference 2001

## PATENTS

G.J. Nathan, BB Dally, etc.. (2012), "A Hybrid Receiver Combustor", Provisional Patent Application No. 2012901258, Date: 29 March 2012

G.J. Nathan, D Battye, P.J. Ashman, E. Hu, B.B. Dally, Z.T. Alwahabi, (2009), "A Boiler System Receiving Multiple Energy Sources", Provisional Patent Application, Date: 16 October 2009

Matthews, J., Nathan, G.J., Dally, B.B., Smith, E.J. and Harris, P. (2003) "An Apparatus and Method for the Treatment of Weed Seeds Using Heat" Provisional Patent Application No. 2003905821, Priority Date: 23 October, 2003.

## ADMINISTRATION AND SERVICE TO THE UNIVERSITY

### MEMBERSHIP OF BOARDS, COMMITTEES AND WORKING GROUPS, ADELAIDE UNIVERSITY

2017-	HDR Strategy
2011-12	Chair- appointment committees (8 committees)
2012-14	Member- Andrew Thomas UG Aerospace Scholarship
2011-	Member - Institute of Mineral and Energy Resources Management Committee
2010-	CET advisory board
2009-	Deputy Director - Centre for Energy Technology
2009	Member - Faculty Promotion Committee
2008	Member and Chair - Adelaide Wind Tunnel Management Committee
2007	Member - Faculty Promotion Committee
2005-2007	Executive Member of the Energy Cluster
2003-2007	Member - Appointment Committees (12) for Academic Staff
2004-2010	Member - Automotive Engineering Advisory Committee
2002-2014	Member - School Industry Advisory Committee
2001-2004	Member - Faculty Board Member
2001-	Member - Thermo-Fluids Curriculum sub-committee
2000-2004	Chair - School Technical Staff Committee
2000	Chair - School Research Review Committee
1999-2000	Member - Faculty Research Committee
1999-	Member - School Research and Postgraduate Committee

## PROFESSIONAL ACTIVITY, INCLUDING SERVICE TO THE COMMUNITY

### CONSULTANCIES

Summary: 19 reports, ~\$190,000.

### PROFESSIONAL AFFILIATION

2011-	Deputy Chairman - Combustion Institute, Australia and NZ Section
2001-2011	Executive Member - Combustion Institute, Australia and NZ Section
2011-2015	Member - American Chemical Society
2002-2014	Executive Member - Australasian Fluid & Thermal Engineering Society
2000-2004	Member - SIEA (Sustainable Energy Industry Association)
1999-2009	Member - ASHRAE (American Soc. of Heating Refriger. and Air Conditioning Engineers)
1992-2001	Member - Combustion Institute, Australia and New Zealand Section

## CONTRIBUTION TO ACTIVITIES OF SCIENTIFIC SOCIETIES AND PROFESSIONAL BODIES

### CONFERENCE ORGANISATION

2020	Co-Convener, 38th International Symposium on Combustion in Adelaide
2018-2019	Coordinator (chair) Laser Diagnostics Colloq., 37th Int. Symp. on Combustion
2018	21AFMC in Adelaide, Treasurer
2011-	Organising Committee - International Sooty Flames (ISF) workshop
2011-2012	Co-Chair of Stationary Combustion Colloquium for the 34th Int. Symposium of Combustion
2009-2010	The 8th Asia Pacific Conference on Sustainable Energy & Environmental Technologies
2008-2009	AAEE Conference, (Organising Committee Member)
2005-2008	International Congress on Theoretical and Applied Mechanics ICTAM2008
2005	Eighth Australian Heat and Mass Transfer Conference (Organizing Committee member)
2005	Fifth Asia-Pacific Conference on Combustion (Secretary, Proceeding Co-Editor)
2005	4th Australian Conference on Laser Diagnostics in Fluid Mech. and Combustion, (Secretary, Proceeding Co-Editor)
2002	Australian Symposium on Combustion and 7th Australian Flame Days, Adelaide
2002	Second International Conference on Computational Fluid Dynamics Sydney 2002
2001	14th Australasian Fluid Mechanics Conference, Adelaide 2001 (Secretary, Proceed. Editor)
2001	Symposium in Memory of Tony Perry, Adelaide 2001 (Organizing Committee Member)