



IN CONFIDENCE: CURRICULUM VITAE

Name (title, first name(s), surname): Dr Pat Scott	
Nationality (Citizenship if appropriate): Australian	
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Employment: Provide details of your employment in chronological order (most recent first)			
Dates		Organisation and position held	Type of appointment
From	To		
10/12	09/14	NSERC Banting Fellow, McGill University	fixed-term
10/10	09/12	Institute for Particle Theory (Canada) Fellow / Trottier Astrophysics Fellow, McGill University	fixed-term

Education: Undergraduate and postgraduate studies					
Dates		University/College attended	Department	Subject	Class of award
From	To				
2006	2010	Stockholm University	Physics	Theoretical Physics	PhD
2006	2008	Stockholm University	Physics	Theoretical Physics	Licentiate
2001	2005	Australian National University	John Curtin School of Medical Research	Neuroscience	Bsc (Hons, First Class)
2001	2004	Australian National University	Research School of Astronomy & Astrophysics	Astrophysics	Bsc (Hons, First Class)

Provide a brief description for the following:

Prizes, awards and honours received:

2012-2014 *The Banting Fellowship*, Government of Canada Tri-Agency / NSERC (£88K)
2010-2012 *Theory Fellowship*, Canadian Institute for Particle Physics (£35K)
2010-2012 *The Trottier Fellowship* in Astrophysics, McGill University (£42K)
2010 *The CfA Fellowship* (declined), Harvard-Smithsonian Centre for Astrophysics (£140K)
2010 *The Sigrid Arrhenius Prize*, Stockholm University, best thesis in Science
2009 *G & E Kobbs Foundation Grant* (£4.7K)
2009 *Helge Axelsson Johnsons Foundation Grant* (£1.3K)
2009 *CF Liljevalchs Foundation Travel Grant* (£0.7K)
2008 *G & E Kobbs Foundation Grant* (£1.3K)
2008 *European Network for Theoretical Astroparticle Physics ILIAS/N6 Travel Grant* (£0.8K)
2008 *Helge Axelsson Johnsons Foundation Grant* (£1.3K)
2007 *IAU Exchange of Astronomers Grant*, Internat. Astronomical Union Commission 46 (£1.2K)
2006-2010 *HEAC (High Energy Astrophysics and Cosmology Centre) Doctoral Fellowship*, AlbaNova University Centre, Stockholm.
2006 *The Sir Grafton Elliot Smith Prize*, Australian Neuroscience Society, best essay on any neuroscience topic by a student yet to submit a doctoral thesis
2005 *The Bok Prize*, Astronomical Society of Australia, best Honours/Masters thesis in astronomy or astrophysics at an Australian university
2004, 2005 *The University Medal* (twice), Australian National University
2001-2005 *National Undergraduate Scholarship and Distinguished Scholar Program*, Australian National University

Research Interests:

Theory and detection of particle dark matter, and phenomenology of particle physics beyond the standard model: indirect dark matter detection with gamma rays and cosmic rays,

dwarf galaxies, the impacts of dark matter upon stars, supersymmetry and its breaking, techniques for scanning supersymmetric parameter spaces, dark matter in the very early universe, collider phenomenology and neutrino telescopes. **Also numerical methods in physics, stellar/solar evolution and the chemical composition of the Sun.**

Teaching experience (include dates):

2011 Lecturer, Tutor and Course Responsible, *PHYS606: Practical Numerical Methods in Physics*, McGill University; 13 students, mixed graduate/undergraduate.
2011 Guest Lecturer, *Stellar Evolution*, San Francisco University (Main Lecturer: Aparna Venkatesan); ~20 students, undergraduate.
2008-2009 Tutor, *FK7025: Advanced Relativistic Quantum Field Theory*, Stockholm U.; 6 graduate students
2003 *Residential Tutor in Physics and Mathematics*, Burgmann College, Australian National University; ~ 20 students, undergraduate.

Student supervision - PhD and undergraduate (include dates):

Mentoring (unofficial supervision) of
PhD students: Yashar Akrami (Stockholm, 2010), Aaron Vincent (McGill, 2012), Elinore Roebber, Grace Dupuis (both McGill, 2016)
Masters students: Hamish Silverwood (Canterbury, 2012), Elinore Roebber, Grace Dupuis (both McGill, 2012), Philippe Giguere and Francis Duplessis (both McGill, 2013)

Scientific responsibilities held (e.g. committee & working group membership, coordinator & convenor roles, space mission involvement):

Associate member of the IceCube Collaboration (since April 2011)
Affiliated member of the Fermi Large Area Telescope (LAT) collaboration (since 2008)
Member of Stockholm U. Physics Departmental Computing Committee (2009-2010)

Main Collaborators:

Imperial: *Roberto Trotta*; King's College: *Malcolm Fairbairn*; Stockholm: *Joakim Edsjö, Lars Bergström, Jan Conrad, Sofia Sivertsson, Erik Zackrisson*; RWTH Aachen: *Antje Putze*; Utah: *Chris Savage, Paolo Gondolo*; McGill: *Robert Brandenberger, Jim Cline, Gil Holder*; Hamburg: *Torsten Bringmann*, Oslo: *Are Raklev, Yashar Akrami*; Auckland: *Richard Easther*; Penn State: *Sarah Shandera*; Canterbury: *Jenni Adams*; ANU: *Martin Asplund*; Barcelona: *Aldo Serenelli*; Liege: *Nicolas Grevesse*; Royal Belgian Observatory: *Jacques Sauval*; The *Fermi-LAT* and *IceCube* Collaborations

Conference & Seminar organisation (include dates):

2012 Session chair, *The LHC, Particle Physics and the Cosmos*, Auckland
2012 Co-convenor & session chair, *Particle Astrophysics and Cosmology Track, International Conference on High Energy Physics (ICHEP)*, Melbourne
2012 Co-founder and Committee Leader, *McGill Astroparticle Seminar Series*
2011 Discussion leader, Dark Matter, *Northeast Cosmology Workshop*, Montreal
2011 Chair, Organizing Committee for *Dark Matter From Every Direction*, McGill University, April 1–3, 27 attendees
2010 Co-chair, Organizing Committee for *PROSPECTS Conference*, Stockholm University, September 15–17, 42 attendees
2009 Session chair, Neutrinos, *Dark2009*, Christchurch

Conference & Seminar talks: 66 total, 19 invited; see www.physics.mcgill.ca/~patscott/talks

Refereeing (include dates):

MNRAS Letters (2012), A&A (2012), JCAP (2012; 2011; 2009), JHEP (2011; 2011; 2010), ApJL (2011), Statistical Analysis & Data Mining (2011)

Citations - List your top five publications /reports together with the ISI citation rate:

(Because ISI citation rates are highly inaccurate, I also give NASA ADS rates below.)

Asplund M, Grevesse N, Sauval AJ & Scott P, The Chemical Composition of the Sun (2009, *Ann. Rev. Astron. & Astrophys.* 47:481) **Citations: 786 (ADS) / 613 (ISI)**

Scott P, Conrad J, Edsjö J, Bergström L, Farnier C & Akrami Y, Direct Constraints on Minimal Supersymmetry from Fermi-LAT Observations of the Dwarf Galaxy Segue 1 (2010, *JCAP* 01:031) **Citations: 61 (ADS) / 38 (ISI)**

Scott P, Fairbairn M & Edsjö J, Dark stars at the Galactic Centre - the main sequence (2009, *MNRAS* 394:82) **Citations: 41 (ADS) / 25 (ISI)**

Scott P, Asplund M, Grevesse N, Sauval AJ, Line formation in solar granulation. VII. CO lines and the solar C and O isotopic abundances (2006, *A&A* 456:675) **Citations: 39 (ADS) / 29 (ISI)**

Akrami Y, Scott P, Edsjö J, Conrad J & Bergström L, A Profile Likelihood Analysis of the Constrained MSSM with Genetic Algorithms (2010, *JHEP* 04:057) **Citations: 35 (ADS) / 16 (ISI)**