POSITION DESCRIPTION

THE UNIVERSITY OF MELBOURNE

School of Physics
Faculty of Science

Thomas H. Laby Professor of Physics

POSITION NO	0043357
CLASSIFICATION	Professor (Level E)
SALARY	$187,654 p.a.
SUPERANNUATION	Employer contribution of 17%
WORKING HOURS	Full-time
BASIS OF EMPLOYMENT	Continuing
OTHER BENEFITS	http://about.unimelb.edu.au/careers/working/benefits
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers, select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Professor Stuart Wyithe Tel +61 3 8344 5083 Email swyithe@unimelb.edu.au *Please do not send your application to this contact*

For information about working for the University of Melbourne, visit our website:
about.unimelb.edu.au/careers

Position Summary

The Thomas H. Laby Professor of Physics has been established by a generous gift for the purpose of initiating a new leading edge research program in experimental or observational physics. The Professorship is named after Emeritus Professor Thomas Laby, who was the Head of the Physics School [Department of Physics] at the University of Melbourne from 1915-1944.

The School of Physics is seeking an appointment to The Thomas H. Laby Professor of Physics who will provide high level scientific leadership enabling development of a new experimental or observational research program in the fields of either Gravitational Wave Physics or Neutrino Physics. The Thomas H. Laby Professor of Physics will establish a new research group, and will be supported through generous resources for establishment of the research program. These resources include the option of appointing an additional continuing academic position in the chosen area.

The Thomas H. Laby Professor of Physics will demonstrate scientific leadership, an outstanding internationally recognised record of research in experimental or observational physics in the specified areas, and lead the successful establishment of innovative research programs, attracting competitive research funding.

1. Key Responsibilities

1.1 RESEARCH AND RESEARCH TRAINING

- Develop a strategic agenda for research in the specific fields of experimental Gravitational Wave Physics or Neutrino Physics at the University of Melbourne
- Develop research programs within the School of Physics including joint research projects with other Schools or Faculties, research institutes and partner organisations
- Establish a new research group in the School of Physics in the specified area of experimental or observational physics, initially including the option for recruitment of a level-B continuing academic
- Build a strong support base for the new group by obtaining external funding for research from research funding bodies
- Recruit, supervise and assist with supervision of postgraduate research students enrolled for research higher degrees

1.2 TEACHING

- In conjunction with the School of Physics Master of Science Coordinator, effectively contribute to the development and delivery of teaching experimental or observational physics in the Master of Science
- Contribute to the School's undergraduate teaching program
- Ensure consistently strong teaching evaluations and other evidence of positive student feedback and peer review

1.3 LEADERSHIP

- Provide a significant leadership role in research and teaching at School, Faculty and institutional levels
- Be responsible for playing a leading role in mentoring and supporting the development of more junior staff within the School and more broadly in the University
- Supervise teaching and research support and professional staff, including conducting Performance Development reviews
- Develop policy and take responsibility for administrative matters within the School, Faculty and/or University
- Participation in School and/or Faculty meetings and/or the committees that have responsibility for the academic affairs of the School
- Effectively liaise with external networks to foster collaboration and sharing of ideas

1.4 ENGAGEMENT

- Present research activities at local, national or international meetings and conferences
- Present research results to the public
- Promote collaboration and strategic partnerships across institutions and industry, nationally and internationally, as required to further research in the new area of experimental or observational physics
- Enhance the School's international standing within the science community through outstanding research and active engagement with stakeholders

1.1 PROFESSIONAL PRACTICE

- Manage research funding obtained from research grants within the determined budgets in accordance with University policy
- Be responsible for administrative and management tasks associated with the selection, performance assessment, and organisation of staff employed in the new research program
- Contribute to the review and development of national and international professional practice standards
- Seek membership of peak bodies and committees advising government on professional practice standards
- Comply with Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in section 5
- Key responsibilities in addition to the above are outlined in the document "University Expectations of a Professor" https://staff.unimelb.edu.au/human-resources/academic-careers-@-melbourne/promotion/ExpectationsOfAProfessor.pdf

2. Selection Criteria

2.1 ESSENTIAL

- A research doctorate or equivalent
- A distinguished international track record in experimental or observational research in a field of either Gravitational Wave Physics or Neutrino Physics, including significant publications
- Recognition as a leading authority with an international reputation
- An excellent record in attracting and providing supervision to completion of graduate research students
- A record of teaching excellence with extensive involvement in undergraduate and postgraduate education in physics
- Excellent communication and interpersonal skills with proven ability to exercise initiative and negotiate positive outcomes

2.2 DESIRABLE

- A demonstrated ability to foster linkages with other areas of Physics, other disciplines, industry and the community
- A demonstrated commitment to knowledge exchange with engagement extending beyond university into the community
- A track record of research-led teaching and of translating research into practice
- Commitment to excellence, and demonstrated capacity in leadership and innovation of undergraduate and postgraduate teaching in physics

3. Additional Information

- Generous provisions will be provided for set up of research infrastructure.
- Other strategic funding is available as part of the University's Research at Melbourne strategy.
- Appropriate research space has been reserved within the David Caro Building to house essential infrastructure. Redevelopment of this research space will be undertaken in consultation with the Thomas H. Laby Professor of Physics.

4. Equal Opportunity, Diversity and Inclusion

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all

forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the University's People Strategy 2015-2020 and policies that address diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people's age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to strive for excellence and reach the targets of Growing Esteem.

5. Occupational Health and Safety (OHS)

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

http://safety.unimelb.edu.au/topics/responsibilities/

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

6. Other Information

6.1 SCHOOL OF PHYSICS

www.physics.unimelb.edu.au/

The University of Melbourne's School of Physics is one of Australia's leading Physics Schools. It has achieved this status through the high quality of its research and teaching programs. The School offers a wide range of physics subjects to undergraduate and postgraduate students, and performs research in the following areas: Astrophysics, Atomic, Molecular and Optical Physics, Experimental Condensed Matter Physics, Experimental Particle Physics, Material Science, Physical Biosciences, Theoretical Condensed Matter Physics and Theoretical Particle Physics.

The School of Physics hosts the ARC Centre of Excellence in Particle Physics at the Terascale and the Melbourne nodes of the ARC Centre of Excellence for Quantum Computation and Communication Technology, the ARC Centre of Excellence for Advanced Molecular Imaging and the ARC Centre of Excellence for All-Sky Astrophysics. The School also plays a major role in the Australian Synchrotron research program.

Currently some 25 academics, 51 research-only staff, more than 95 postgraduate students and 72 associates supported by 23 professional staff make up the School of Physics. The School additionally hosts an Australian Laureate Fellow, 5 ARC Future Fellows, and 4 ARC Discovery Early Career Researcher. Skilled technical staff operate, maintain and develop complex instrumentation and equipment to support the teaching and research activities of the School. The School is located in the David Caro building on the Swanston Street boundary of the University campus. The Head of School and the

majority of the Professional staff are housed on the ground floor of the building to act as the first point of contact for students, staff and visitors.

6.2 FACULTY OF SCIENCE

http://www.science.unimelb.edu.au

Science at the University of Melbourne is the most highly ranked Faculty of Science in Australia.* Science is defined by its research excellence in the physical and life sciences and is at the forefront of research addressing major societal issues from climate change to disease. Our discoveries help build an understanding of the world around us.

We have over 150 years of experience in pioneering scientific thinking and analysis, leading to outstanding teaching and learning and offer a curriculum based on highly relevant research, which empowers our STEM students and graduates to understand and address complexities that impact real world issues and the challenges of tomorrow.

We aspire to engage the broader community with the impact that Science has on our everyday lives. Through the strength of our internships and research project offerings, our students are provided opportunities to engage with industry partners to solve real-world issues.

The Faculty of Science has over 50,000 alumni and is one of the largest faculties in the University comprising seven schools: BioSciences, Chemistry, Earth Sciences, Ecosystem and Forest Sciences, Geography, Mathematics and Statistics, and Physics.

The Faculty is custodian of the Bio21 Molecular Science and Biotechnology Institute, Office for Environmental Programs and home to numerous Centres.

Science manages more than $290 million of income per annum, with a staff base in the order of 270 professional staff, and more than 580 academic staff.

We offer a range of undergraduate, honours, graduate and research degrees; enrolling over 8,600 undergraduate and 2,440 graduate students. The Faculty of Science is the custodial Faculty for the BSc (Bachelor of Science). The Faculty of Science is a leader in research, contributing approximately $70 million in HERDC income per annum. The Faculty of Science is highly research focused, performing strongly in the ARC competitive grants schemes, often out-performing the national average. The Faculty of Science is currently growing its competitiveness and standing in the NHMRC space.

The Faculty of Science provides community services and industry partnerships based on a solid foundation of research in the pure and applied sciences. The Faculty has an endowment of approximately $56 million. The annual income from the endowment supports more than 120 prizes, scholarships and research awards.

* Figures from the latest available data for 2015, including published international rankings data.

6.3 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is recognised as the hub of Australia's premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at http://about.unimelb.edu.au/careers.

6.4 GROWING ESTEEM, THE MELBOURNE CURRICULUM AND RESEARCH AT MELBOURNE: ENSURING EXCELLENCE AND IMPACT TO 2025

Growing Esteem describes Melbourne's strategy to achieve its aspiration to be a public-spirited and internationally-engaged institution, highly regarded for making distinctive contributions to society in research and research training, learning and teaching, and engagement. http://about.unimelb.edu.au/strategy-and-leadership

The University is at the forefront of Australia's changing higher education system and offers a distinctive model of education known collectively as the Melbourne Curriculum. The new educational model, designed for an outstanding experience for all students, is based on six broad undergraduate programs followed by a graduate professional degree, research higher degree or entry directly into employment. The emphasis on academic breadth as well as disciplinary depth in the new degrees ensures that graduates will have the capacity to succeed in a world where knowledge boundaries are shifting and reforming to create new frontiers and challenges. In moving to the new model, the University is also aligning itself with the best of emerging European and Asian practice and well-established North American traditions.

The University's global aspirations seek to make significant contributions to major social, economic and environmental challenges. Accordingly, the University's research strategy *Research at Melbourne: Ensuring Excellence and Impact to 2025* aspires to a significant advancement in the excellence and impact of its research outputs. http://research.unimelb.edu.au/our-research/research-at-melbourne

The strategy recognises that as a public-spirited, research-intensive institution of the future, the University must strive to make a tangible impact in Australia and the world, working across disciplinary and sectoral boundaries and building deeper and more substantive engagement with industry, collaborators and partners. While cultivating the fundamental enabling disciplines through investigator-driven research, the University has adopted three grand challenges aspiring to solve some of the most difficult problems facing our world in the next century. These Grand Challenges include:

- Understanding our place and purpose – The place and purpose grand challenge centres on understanding all aspects of our national identity, with a focus on Australia's 'place' in the Asia-Pacific region and the world, and on our 'purpose' or mission to improve all dimensions of the human condition through our research.
- Fostering health and wellbeing – The health and wellbeing grand challenge focuses on building the scale and breadth of our capabilities in population and global health; on harnessing our contribution to the 'convergence revolution' of biomedical and health research, bringing together the life sciences, engineering and the physical sciences; and on addressing the physical, mental and social aspects of wellbeing by looking beyond the traditional boundaries of biomedicine.
- Supporting sustainability and resilience – The sustainability and resilience grand challenge addresses the critical issues of climate change, water and food security, sustainable energy and designing resilient cities and regions. In addition to the technical aspects, this grand challenge considers the physical and social functioning of cities, connecting physical phenomena with lessons from our past, and the implications of the technical solutions for economies, living patterns and behaviours.

Essential to tackling these challenges, an outstanding faculty, high performing students, wide collaboration including internationally and deep partnerships with external parties form central components of Research at Melbourne: Ensuring Excellence and Impact to 2025.

6.5 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at http://www.unimelb.edu.au/governance