

Sinéad M. Ryan

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Academic Positions

2016 – Present	Chair of Theoretical High Energy Physics , Trinity College, Dublin, Ireland
2012 – 2016	Head of School , School of Mathematics, Trinity College Dublin, Ireland
2012 – 2016	Professor , School of Mathematics, Trinity College Dublin, Ireland
2006 – 2012	Senior Lecturer , School of Mathematics, Trinity College Dublin, Ireland
2000 – 2006	Lecturer (tenured) , School of Mathematics, Trinity College Dublin, Ireland
1999 – 2000	Lecturer in High Performance Computing , School of Mathematics, Trinity College Dublin, Ireland
1996 – 1999	Research Associate , Fermi National Accelerator Laboratory, Illinois, USA

Professional Preparation

1993 – 1996	Ph.D. , The University of Edinburgh, U.K. Advisor – Prof R. Kenway.
1992 – 1993	M.Sc. (Research) , University College Cork, Ireland
1988 – 1992	B.Sc. (Hons. 1st class) , University College Cork, Ireland

Honorary Positions & Awards

2017	August-Wilhelm Scheer Visiting Professor, Institute for Advanced Study, Technical University Munich, Germany
2016/17	Visiting Fellow, Clare Hall College, University of Cambridge, UK
2007/08	Visiting Scientist, Theory Group, Thomas Jefferson National Accelerator Facility, USA
2003	Elected to Fellowship, Trinity College Dublin

Synergistic Activities – commissions of trust (selected)

2019 – present	Vice-Chair of the EuroHPC Infrastructure Advisory Group (https://eurohpc-ju.europa.eu/governance.html)
2017 – 2018	Chair of the PRACE Scientific Steering Committee (http://www.prace-ri.eu/organisation/)
2016 – present	Chair of the PANDA Theory Advisory Group (https://panda.gsi.de/content/theory-advisory-group)
2007-2010, 2015 – Present	Member, Governing Board, School of Theoretical Physics, Dublin Institute of Advanced Study
2014 – Present	Founding academic partner of the Walton Club (www.tcd.ie/waltonclub)
2013 – 2015	Member, <i>Wilson Prize in Lattice QCD</i> Committee.
2000 – Present	International Advisory Committee for the Symposium in Lattice Field Theory Journal, Grant Referee and Institutional reviewer for PRD, PRL, PLB, DOE, NSF, NSERC, STFC, IRC and European Commission.

Synergistic Activities – conference service (2018 only)

2020	Co-Chair, PASC20, Geneva, Switzerland.
2020/19/18	Member of the International Advisory Committee for the International Symposium on Lattice Field Theory (Lattice 2018/19/20)

2018	Platform for Advanced Scientific Computing, Basel Switzerland. Program Chair.
2018	Digital Infrastructure for Research. Lisbon, Portugal. Conference Chair.
2018	XIIIth Quark Confinement and the Hadron Spectrum, Ireland. Local organiser.
2018	PRACEdays and European High Performance Computing. Slovenia. Organiser.

Invited Plenary and Review Talks and Masterclasses (last 5 years)

2018	<i>Quantum Universe</i> , Symposium & Masterclass, Groningen, Netherlands; Swedish Nuclear Physics Academy Annual Conference
2017	<i>Lattice Meets Continuum</i> , Siegen Germany; <i>Masterclass on Hadron Spectroscopy</i> Theory, GSI Germany
2016	<i>Charm 2016</i> , Bologna Italy; <i>Meson 2016</i> , Krakow, Poland; <i>National Nuclear Physics Graduate School</i> , MIT USA;
2015	<i>Resonances in QCD</i> . EMMI GSI Darmstadt, Germany; <i>Light Cone 2015</i> . INFN Frascati, Italy. <i>European Nuclear Physics Conference</i> . Groningen, Netherlands; <i>Masterclass in Hadron Physics</i> . Groningen, Netherlands.
2014	<i>PANDA Collaboration meeting</i> . GSI Darmstadt, Germany.
2013	<i>Flavor Physics and CP Violation</i> . Heifei, China.

10 Representative Publications (past 10 years only)

- *Coupled-channel $D\pi$, $D\eta$ and $D_s K$ scattering from lattice QCD*. G. Moir, M.J. Peardon, [S.M. Ryan](#), C.E. Thomas, D.J. Wilson. **JHEP** **1612 (2016)** **089**.
- *Lattice Methods for Hadron Spectroscopy*. [S.M. Ryan](#). **Lect. Notes Phys.** **889 (2015)**.
- *Melting of P wave bottomonium states in the quark-gluon plasma from lattice NRQCD*. G.Aarts, C. Allton, S. Kim, M.P. Lombardo, [S.M. Ryan](#), J.-I. Skullerud. **JHEP** **1312 (2013)**.
- *Excited spectroscopy of charmed mesons from lattice QCD*. G. Moir, M. Peardon, [S.M. Ryan](#), C.E. Thomas, L. Liu. **JHEP** **1305 (2013)** **021**.
- *Excited and exotic charmonium spectroscopy from lattice QCD*. L. Liu, G. Moir, M. Peardon, [S.M. Ryan](#), C.E. Thomas, P. Vilaseca, J.J. Dudek, R.G. Edwards, B. Joo, D.G. Richards. **JHEP** **1207 (2012)** **126**.
- *The bottomonium spectrum at finite temperature from $N_f = 2 + 1$ lattice QCD*. G. Aarts, C. Allton, T. Harris, S. Kim, M.P. Lombardo, [S.M. Ryan](#), J.I. Skullerud. **JHEP** **1407 (2014)** **097**.
- *What happens to the Upsilon and eta b in the quark-gluon plasma? Bottomonium spectral functions from lattice QCD*. G. Aarts, C. Allton, S. Kim, M.P. Lombardo, M.B. Oktay, [S.M. Ryan](#), D.K. Sinclair, J.I. Skullerud. **JHEP** **1111:103, 2011**.
- *Bottomonium above deconfinement in lattice nonrelativistic QCD*. G. Aarts, S. Kim, M.P. Lombardo, M.B. Oktay, [S.M. Ryan](#), D.K. Sinclair, J.-I. Skullerud. **Phys.Rev.Lett.** **106 : 061602,2011**.
- *First results from 2+1 dynamical quark flavors on an anisotropic lattice: Light-hadron spectroscopy and setting the strange-quark mass*. Hadron Spectrum Collaboration: H.-W. Lin, S.D. Cohen, J. Dudek, R.G. Edwards, B. Joo, D.G. Richards, J. Bulava, J. Foley, C. Morningstar, E. Engelson, S. Wallace, K.J. Juge, N. Mathur, M.J. Peardon, [S.M. Ryan](#). **Phys.Rev.** **D79 : 034502,2009**.
- *Practical all-to-all propagators for lattice QCD*. J. Foley, K. J. Juge, A. O Cais, M. Peardon, [S.M. Ryan](#), J.I. Skullerud. **Comput.Phys.Commun.** **172:145-162,2005**.

Graduate Students (past 5 years)

J.Foley (TCD), R. Morrin (TCD), F. McElroy (TCD), T. Harris (TCD), C. O'Hara (TCD), L. Gayer (TCD).

Postdoctoral Fellows (past 10 years, current positions indicated)

A. Feo (Parma U.), G. Burgio (Tuebingen), A. O Cais (Juelich), J.K. Juge (Pacific U.), M. Oktay (Utah), J.I. Skullerud (Maynooth U.), L. Liu (Chinese Academy of Sciences), B. Leder (Humbolt U.).

Collaborators

Hadron Spectrum Collaboration: Raul Briceño, Jozef Dudek, Robert Edwards, Bálint Joó, David Richards (JLAB); Nilmani Mathur (Tata, Mumbai); Mike Peardon, David Wilson (TCD); Christopher Thomas (Cambridge).

Fast-Sum Collaboration: Gert Aarts, Christ Allton (Swansea); Jon-Ivar Skullerud (Maynooth); Seyong Kim (Seoul); Maria P. Lombardo (INFN Firenze).

Current Support

2018 – Present

2018

2016 – Present

2016 – Present

SFI Conference & Workshop Grant.
TCD Visiting Professor Benefaction
Simons Foundation Targeted Grants to
Institutions for the Hamilton Mathematics
Institute. Co-PI.
IRC Postgraduate Award.