

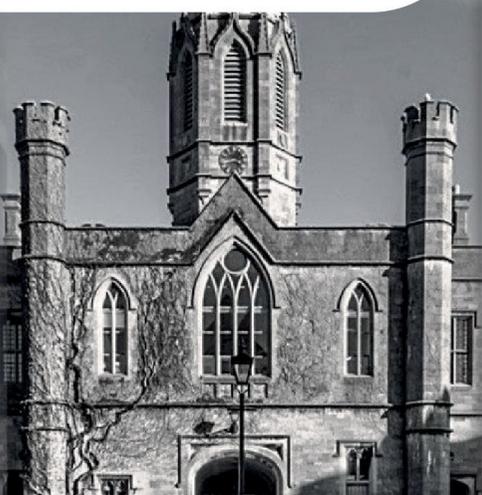
A
FAMILIAR COMMENTARY
OF
THE COMPENDIUM
OF
LOGIC,
USED BY UNDER-GRADUATES
IN
THE UNIVERSITY OF DUBLIN
By JOHN WALKER,
LATE FELLOW OF DUBLIN COLLEGE.

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IRISH MATHEMATICS CALENDAR 2022

PRINCIPLES
OF
MODERN GEOMETRY,
WITH NUMEROUS APPLICATIONS TO
PLANE AND SPHERICAL FIGURES;
AND
AN APPENDIX,
CONTAINING QUESTIONS FOR EXERCISE.
INTENDED CHIEFLY FOR THE USE OF JUNIOR STUDENTS.
BY
JOHN MULCAHY, LL.D.,
LATE PROFESSOR OF MATHEMATICS, QUEEN'S COLLEGE, GALWAY.
Second Edition, Revised.



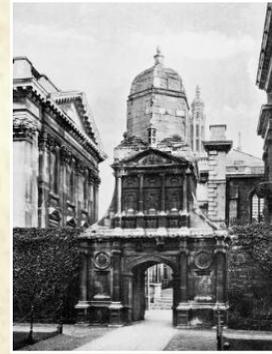
January

2022

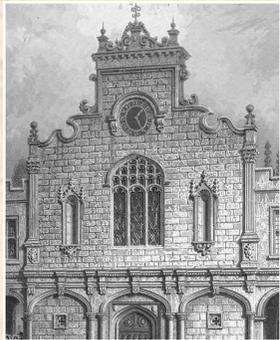
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
					NEW YEAR'S DAY 1 Robert Sheehy	2 Walter Heitler (1904-1981) Bill Wann (1925-2011) Irish Mathematics Teachers Association founded, 1964
New Year Holiday 3	4	5 John Cosgrave	6 Edith Stoney (1869-1938) Brendan O'Shea	7	8 Ray Flannery (1941-2013) Peter McCullough	9 Kevin McGerty
10 Dermot Mullan	11 Charlie Daly (1929-2000)	12 Agnes Scott (1879-1975) Brian McMaster BT Young Scientist and Technology	13 David Simms (1933-2018) Ken Houston BT Young Scientist and Technology	14 BT Young Scientist and Technology	15 Sheila Power (1918-2010)	16 Sean Tobin Colm O'Muircheartaigh Annette Pilkington Jerry Murphy
17 Alfred Robb (1873-1936) Richard Walsh (1913-1994)	18 William Houston (1871-1953)	19	20 William Bindon Blood (1817-1894) John McCarthy Colin Turner	21	22 Barbara Yates (1919-1998) Brendan Goldsmith	23 Aaron Golden Niamh O'Meara
24	25 Robert Boyle (1627-1691) Gerry McGreevy (1929-2015)	26 John Hooper (1878-1930) Eric Lindsay (1907-1974) Fred Mtenzi Neil Dobbs Jnr	27 Anna Patterson (1887-1966)	28 Harry Kennedy (1887-1968) Des MacHale Paul McNicholas Louis Aslett	29 Andrew Whitaker	30 Coulter McDowell (1932-1993)
31 David Hobbs						



John Stubbs (1821-1897) was born 1 February in Dublin, and was educated at TCD, where he spent his entire career. He is credited (alongside his colleague John Kells Ingram) with introducing the geometric concept of inversion in a circle. He soon switched to divinity, and later published an extensive history of his institution.



James Warren (1836-1896) was born 10 February in Dublin and was educated at first at TCD, then much later at Cambridge (7th wrangler, Caius), where he taught for over a decade. He then served as a clergyman back in Dublin.



Thomas Knowles (1856-1920) was born 13 February in Ferragh, Cullybackey, Antrim. He was educated at Queen's Belfast and Cambridge (Peterhouse). He taught at the Royal Grammar School (Lancaster) and at Liverpool College (serving as vice-principal there). His interests included astronomy and chemistry.



William Bergin (1864-1942) was born 9 February in Kildare town, and was educated at TCD. His entire career was spent as professor of natural philosophy (later physics) at Queen's, Cork (later UCC).



Mary de Lellis Gough (*née* Margaret Gough, 1892-1983) was born 15 February in Kilmore, Wexford, and emigrated to the USA in 1909. She taught at Incarnate Word College in San Antonio, Texas, in between accumulating maths degrees. Her PhD in algebra from Catholic University in 1931 makes her the earliest known Irish born woman to get a doctorate in maths.



Leo Close (*aka* Leon Mac Clusaigh, 1899-1971) was born 25 February in Belfast, and was educated at QUB (earning a master's by thesis). He then taught at St Malachy's, and after partition he became an inspector of schools in Dublin.

February

2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	1	2 Cornelius Lanczos (1893-1974) Gearóid Granville (1915-2000)	3	4 Terry Maguire Dara Ó Briain	5 André Darré (1750-1833) Bartholemew Lloyd (1772-1837) Stanley Traynor (1916-1994) Stephen O'Brien (1918-1992) Fiona Boland	6 Dan Dundas
7	8 Francis Edgeworth (1845-1926) Stephen Buckley	9 Charles Rowe (1893-1943) Mick Mortell	10 Agnes Clerke (1842-1907)	11 Vincent Hart Elizabeth Oldham	12 Kay McNulty (1921-2006) John O'Sullivan (1948-2006) Seán Dineen	13
14 John Perry (1850-1920)	15 George Stoney (1826-1911) Sophie Wilcock (1850-1922) Mary de Lellis (1882-1983) Ray Ryan	16 Petros Florides	17 William Morton (1868-1949) Fintan Gallagher	18 Arthur Kingston Paddy Dolan (1935-2020)	19 Thérèse Dooley	20 John Connolly Joseph Varilly Stephen Scully
NI Science Festival						
21 David Lewis (1944-2021) NEW Donal O'Regan	22 Maeve McCarthy	23	24 Gordon Foster (1921-2010) Siobhán O'Shea (1932-2002) John O'Donoghue	25 Jim McConnell (1915-1999) Shane Whelan Norma Bargary	26 Arthur Donnelly (1885-1973)	27 John A. Ryan
NI Science Festival						
28 William Thrift (1870-1924) Martin Muldoon (1939-2019)						



Henry Hennessy (1826-1901) was born 19 March in Cork city, and was educated privately. He worked as an engineer before becoming librarian at Queen's College in Cork. Later he served as professor of physics at the Catholic University in Dublin, and then professor of applied maths at the RCSI. He published extensively in mechanics, metrology, and meteorology. He was an early proponent of a decimal system of weights and measures.



Thomas Abbott (1829-1913) was born 26 March in Dublin, and was educated at TCD. Early in his career he published the paper "On a geometrical Problem noticed by Mr. Sylvester." He was an expert on Kant, and occupied the TCD chairs of philosophy, Greek and Hebrew in succession, also serving a notable stint as college librarian.



Thomas Teegan (1857-1921) was born 16 March in Ballivelone, Enniskean, near Bandon, Cork. He was a schools inspector for the National Board of Education and later taught English and History at the Central Training College. He authored the 1887 book *Elementary and Intermediate Algebra*, which ran to 10 editions. His son James (1899-1967) got his PhD in physics at UCD (1937).



Harold Dilworth (1881-1912) was born 6 March in St Ives, Cambridge, and grew up there and in Belfast, Dundalk, and Portarlinton. He was educated at TCD, where he then taught. He moved to Silver Spring, New Mexico, USA, in 1910, and taught there briefly, before dying of TB.



Jane Molyneux (later Dziejewski, 1887-1920) was born 20 March in Liverpool and grew up there and in Belfast. She was educated at QUB, and was the first woman to get a maths MA there. She then studied in Germany, and lectured on physics back at QUB, and published on Zeeman Triplets. She died young in Warsaw, following childbirth.

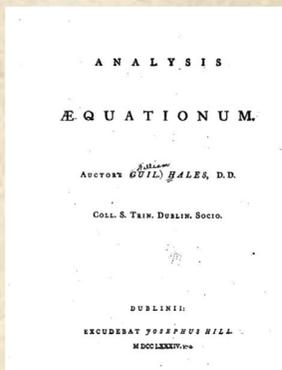


Winifred Morrin (later Mother Isabel, 1900-1968) was born 22 March in Seevness, west of Ballysadare, Sligo, and was educated at UCG. She taught maths for over 2 decades at St Louis School in Kiltimagh, south of Swinford, Mayo, becoming a nun along the way. She then spent another 2 decades teaching and working in administration in missions in Nigeria and Ghana.

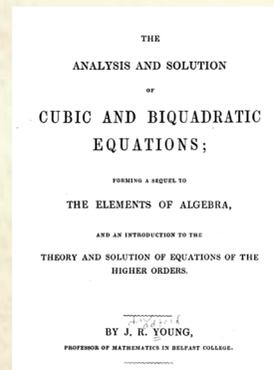
March

2022

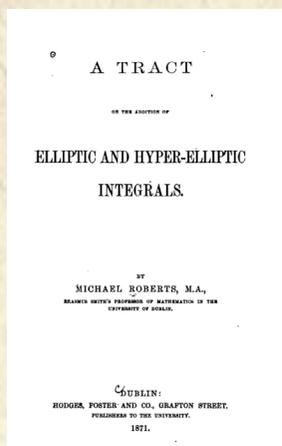
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	1	2 Gerry Gardner (1926-2009) Nora Ní Chuiv Mairéad Greene	3	4	5 George Hall (1925-2018) Iggy Ní Muircheartaigh	6 James McNeill (1853-1907)
			John Hooper Medal Registration deadline	John Hooper Medal poster deadline	Engineers Week	Engineers Week
7	8	9 Robert Graves (1810-1893) John Forde (1918-2004)	10 Eugene Gath	11 Lochlainn O’Raifeartaigh (1933-2000)	12 George Berkeley (1685-1753)	13 Cyril Delaney (1925-2012)
Engineers Week	Engineers Week	Engineers Week	Engineers Week	Engineers Week		
14 Tadhg Carey (1919-1995) Mike Fitzpatrick	15 John Faris (1913-2011) Marie Reilly Mark Leeney Aisling McCluskey	16 Michael Clancy Aoibhinn Ní Shúilleabháin	ST. PATRICK’S DAY 17 Paddy Heelan (1926-2015) Michael P. Tuite Götz Pfeiffer	Public Holiday (RoI) 18 Bill Stephens (1913-2001)	19 Henry Hennessy (1826-1901) Henry Atkins (1896-1957)	SPRING EQUINOX 20 Jane Molyneux (1887-1920) Peter Gallagher
International Day of Mathematics					Tech Week	Tech Week
21 Pat Norris Michael J. Walsh Werner Nahm Neil Hallinan	22 Diarmuid Ó Mathúna	23 Cyril Power (1890-1970) John L. Syngé (1897-1995)	24	25 David Spearman Dermot McLain (1932-2004)	26 Hugh Hamilton (1729-1805) Edward Bromhead (1789-1855) Mary Hanley Cormac O’Raifeartaigh	27 Eithne Donnelly (1900-1989) Eva Wills (1925-1995)
Tech Week	Tech Week	Tech Week				
28 John Kennedy (1939-1995)	29	30 Micheál Mac an Airchinnigh	31 Donal J. Hurley Paul Feehan			



William Hales (1747-1831) was born 8 April in Cork city, and was educated at TCD, where he then taught maths and Hebrew for almost 20 years. He published a study of Newton's theory of sounds and another of Newton's theory on the motions of the planets. He authored the book *Analysis Æquationum* (1784), which Lagrange admired.



John Young (1799-1885) was born 8 April in London and was largely self-educated. He taught at Belfast College in the 1830s and 1840s, during which time he authored several of the over 20 books which bear his name, including *The Analysis and Solution of Cubic and Biquadratic Equations*. He also published numerous research papers.



Michael Roberts (1817-1882, twin of William) was born 18 April in Carrigaline, Cork, and was educated at TCD. He spent his career there, serving as Erasmus Smith's Prof of Maths. (He was appointed inaugural Prof of Maths at Queen's College, Galway, but resigned before the first students arrived.) He published extensively, and authored the book *A Tract on the Addition of Elliptic and Hyper-Elliptic Integrals*.



William Roberts (1817-1883, twin of Michael) was born 18 April in Carrigaline, Cork, and was educated at TCD. He spent his career there, and later served as Donegall Lecturer in Maths. His sons Westropp and Ralph were also mathematicians (see May).



Robert Curtis (1852-1893) was born in Dublin, and was baptised 16 April. He was educated at TCD, taught at Clongowes, and then lectured at UCD for the last decade of his short life, before his early death from epilepsy. He was a good friend of poet Gerard Manley Hopkins—a fellow Jesuit—they had been named Royal University of Ireland Fellows at the same time.

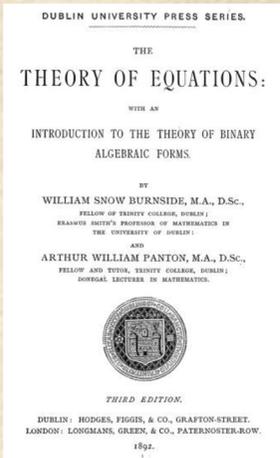
$$C_n = 2^n n + 1.$$

James Cullen (1867-1933) was born 19 Apr in Drogheda, Louth. He studied maths at TCD but left and later became a Jesuit priest. He taught maths in England, and published about numbers of the form $n \cdot 2^n + 1$, which are now known as Cullen numbers. Are there infinitely many such numbers which are prime, such as when $n = 1, 141,$ or 4713 ? This is still an open question.

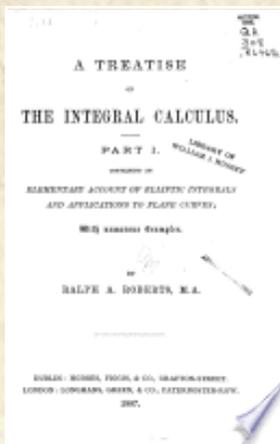
April

2022

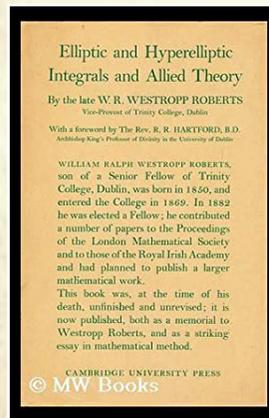
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
				1	2 Michael Power (1885-1974)	3 Dionysius Lardner (1793-1859) Richard Townsend (1821-1884) Brian Murdoch (1930-2020) Eugene Curtin Jill Tysse
4	5 Roger North (1816-1895) Bill Keating	6 Peter McNamara	7 Sean Lacey	8 Andrew Graham (1815-1908) Tom Linehan (1926-2017) Olga O'Mahony	9	10
11 R.C. Geary (1896-1983)	12	13 Lizzie Boyd (1897-1988)	14 Anne Russell (1868-1947) Eoin Long	GOOD FRIDAY 15 Janet Nichols (1894-1978) John T. Lewis (1932-2004) David Malone	16 Eamonn Tierney (1918-2004)	EASTER SUNDAY 17 William Molyneux (1656-1698) Mark McCartney
EASTER MONDAY 18 George Keating (1902-1973)	19 John MacFarland (1851-1935) James Cullen (1867-1933) Hugh Alexander (1909-1974) James Gleeson	20 Phil Boland	21 William Monck (1839-1915) Peter Hogan	22 James McMahon (1856-1922)	23 Thomas Robinson (1792-1882) Rachel Sullivan (1913-1996)	24 Norma Glasgo Reid
25 Dermott McCreagh (1934-1993)	26 Richard Beatty (1882-1941) Bobbie Elliot (1924-2006) Kevin Hutchinson	27	28 John Toland	29 Cormac Smith (1926-2009)	30 Sally McClean	



Arthur Panton (1843-1906) was born 13 May in Blessington, Wicklow and was educated at TCD. He taught at TCD from 1884 on, also serving as junior bursar. He co-authored the influential book *The Theory of Equations: With an Introduction to the Theory of Binary Algebraic Forms* with W.S. Burnside (see December).



Ralph Roberts (1854-?) was born 14 May in Dublin, and grew up there and in Carrigaline, Cork. He was educated at TCD, where he taught before moving to London and working as a tutor. His books include *Elementary Account of Elliptic Integrals and Applications to Plane Curves*. He died by 1911. His brother Westropp, and their father William and uncle Michael (twins) were also TCD maths men who had been on the staff there.



W. R. Westropp Roberts (1850-1935) was born 6 May in Dublin, and grew up there and in Carrigaline, Cork. He was educated at TCD, where he spent his whole career, eventually serving as vice-provost. He published extensively, and his book *Elliptic and Hyperelliptic Integrals and Allied Theory* appeared posthumously. His brother Ralph, and their father William and uncle Michael (twins) were also TCD maths men who had been on the staff there.

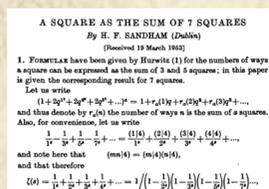


Hilda Martin (1883-1965) was born 1 May in Dublin and grew up there and in Belfast. She was educated at Queen's Belfast, and co-authored a note in *Nature*. She attended Cambridge Training College, and taught for many years at Bedford Girl's Modern School. She was back in Belfast by WWII.

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John Leathem (1871-1923) was born 5 May in Belfast and was educated at Queen's Belfast and Cambridge. His career was spent at Cambridge, where he focused mostly on electro-dynamic theory. His books included *Volume and Surface Integrals Used in Physics* (1905), in which he introduced the now standard arrow notation for limits. His colleague G. H. Hardy enthusiastically embraced and promoted this innovation.



Harry Sandham (1917-1963) was born 1 May in Dublin and grew up there and in Sligo. He was educated at TCD, and lectured there for over a decade. He then conducted research at DIAS, before moving to Nelson Research Laboratories (English Electric Labs) in Staffordshire. He was an active contributor to maths journals throughout his relatively short life.

May

2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
						1
BANK HOLIDAY 2 William McFadden Orr (1866-1934)	3 Brendan J. Murphy Laura Cooke	4 Johnny Burns	5 W.R.W. Roberts (1850-1935) John Leatham (1871-1923) Mervyn Ellison (1909 - 1963) Cathleen Morawetz (1923-2017) Robin Harte	6 PJ Cregg Dana Mackey	7	8 Robert Genese (1848-1928) Thomas Strain (1878-1949) Trevor West (1938-2012)
9 Turlough Downes	10	11 Alfred Williams (1899-1976) Martin Mathieu George Harry Hitching	12 John Casey (1820-1891) Alexander Anderson (1858-1934) Fran Barry (1939-2008) Finbarr Holland	13 Arthur Panton (1843-1906) Marjorie Paterson-Smyth (1889-1975) Leo Creedon	14	15 Alice Everett (1865-1949)
16 Jack Todd (1911-2007)	17 J.R. (Dick) Timoney (1909-1985) Shane Dowdall Society of Actuaries in Ireland founded (1972)	18 Mike McElroy	19 Brendan Scaife Brian Dolan	20 John Gough	21 Trevor Weekes (1940-2014) Owen O'Shea	22 A.C. Dixon (1865-1936) Stan Broderick (1893-1962)
23 Thomas Preston (1860-1900) James Caldwell Adrian Dunne	24 Gar de Barra	25 Helen Purtill	26 John Campbell (1862-1924) Tadhg Creedon	27	28 George Minchin (1845-1914) Seoirse Mac Niocaill (1881-1968) Tony O'Farrell	29 Mary Brück (1925-2008)
30	31					



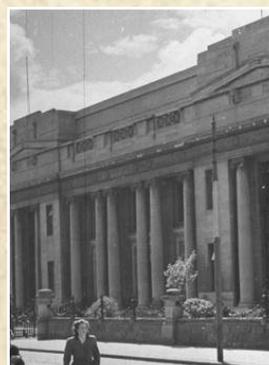
Matilda Coneys (later Fitzsimon, 1834-1918) was born in Salthill, Galway, and was baptised on 27 June. She attended the Royal College for Science in Ireland in the early 1860s and also the Museum of Irish Industry, where she excelled in chemistry and maths. She corresponded with David Livingstone, and taught maths in England into the early 1900s.



W. McLaren Smith (1843-1873) was born 25 June in Belfast and was educated at Queen's there. He also studied briefly at Trinity College in Cambridge. His very short career was spent teaching in India, first at the Bengal Educational Service, then the College of Berhampore, and finally at Presidency College (Calcutta).



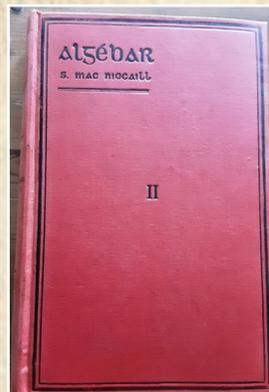
William Coates (1857-1912) was born 2 June in Midleton, Cork, and was educated at TCD and Cambridge (Queen's, 3rd wrangler). He was an examiner for the Intermediate Board of Education before being a leading coach at Cambridge for over 2 decades, dying relatively early.



James Smith (1892-1983) was born 29 June in Clonmel, Tipperary, and grew up there and in Cork. He was educated at UCD, and then at Union College in Schenectady, New York. Most of his career was spent with General Electric nearby, publishing maths on and off, and he also taught from time to time at Union College. He spoke at both the Bologna and Zürich ICMs.



Dave Cochran (1940-2013) was born 20 June in Dublin and was educated at TCD and Dartmouth. He spent a decade at Lake Forest College, north of Chicago, then switched to IT consulting.



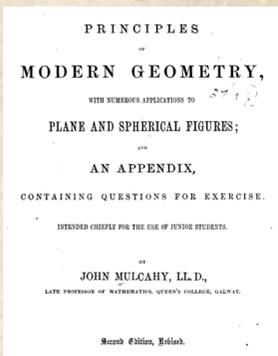
George Nicholls (*aka* Seoirse Mac Niocaill, 1881-1968) was born on 27 June in Strabane, Omagh, and he grew up there, in Tipperary, and in Dublin. He was educated at TCD, and taught in England before being appointed a school inspector in Ireland. His long tenure in the Dept of Education saw him oversee all instruction in Irish in the early years of the Free State. He also authored several school maths books in Irish.

June

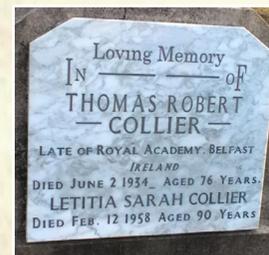
2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
		1 Helen Megaw (1907-2002) Edmund Robertson	BANK HOLIDAY (NI) 2 William Coates (1857-1912) Ralph Henstock (1923-2007) Alexei Pokrovskii (1948-2010)	PLATINUM JUBILEE (NI) 3 Jim Callagy (1908-1988) Murrough Golden	4 Donal McCarthy (1908-1980) Rod Gow Miguel Bustamante	5 Agnes Perry (1882-1963) Margaret White (1909-1975) Jim Hanley Joan Cleary
BANK HOLIDAY (RoI) 6	7 John S. Townsend (1868-1957) Maevé Maguire	8 Alicia Boole (1860-1940) George Hughes (1918-1994) Frank Fahy (1922-2005) Romina Garburro	9 Muriel Wales (1913-2009)	10 Jack Semple (1904-1985) Liam O'Carroll (1945-2017)	11	12 Margaret McDonald (1906-1989)
13 William Gosset (1876-1937)	14 Thomas McLaughlin (1896-1971) Sarah Mitchell	15	16	17 Terence Gorman (1923-2003)	18	19 Maurice Jaswon (1922-2011) Peter Lynch
20 Dave Cochran (1940-2013)	SUMMER SOLSTICE 21 Jim Boyd Fiacre Ó Cairbre	22 Luke Drury Cora Stack	23	24 James J. Smith (1892-1983) Derek Crothers (1942-2021)	25 Samuel Verblunsky (1906-1996) Susan Lazarus	26 William Thomson (1824-1907) Victor Meally (1911-1986) John J. Roche
27 Morgan Crofton (1826-1915) Charles Joly (1864-1906)	28	29 Phelim Boyle	30			

Dublin Institute for Advanced Studies
Act signed, 1940



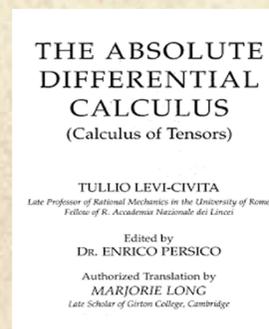
John Mulcahy (1809-1853) was born (probably in July) in Cork city, and was educated at TCD, which was unusual for a Catholic at that time. He became the first actual professor of maths at the new Queen's College, Galway in 1849. Sadly, he died a few years later, having just published the book *Principles of Modern Geometry*.



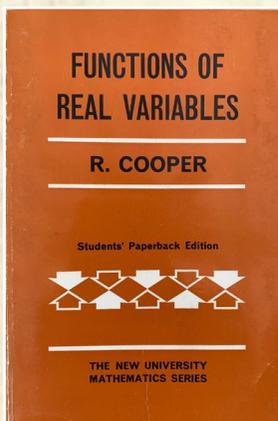
Thomas Collier (1857/8-1934) was probably born 28 July in Cork, and grew up there, in Donegal, Cavan and Antrim. He was educated at Queen's, Belfast, and taught at Methodist College and then in Chiswick, London, before being appointed headmaster at Belfast Royal Academy Institute. After a quarter of a century there, he retired to NSW, Australia.



James Gibney (1868-1902) was born 26 July in Dublin and was educated at UCD. He was a Fellow of RUI, and professor of maths there. He was appointed lecturer of maths at Maynooth in 1902, but died of TB at the end of that November.



Marjorie Long (1886-1937) was born 16 July in Arklow, Wicklow, and grew up there, in Mullingar, Dundalk and Belfast. She was educated at Girton College, Cambridge. She published a paper in the *Proceedings of the LMS* and taught for at least a decade at Bedford College. She translated Levi-Civita's influential book *Absolute Differential Calculus* from Italian.



Ralph Cooper (1903-1979) was born 6 July in Hull, Yorkshire, England, and was educated at Cambridge and Oxford. He spent 35 years on the staff at QUB, and authored the book *Functions of Real Variables: A Course of Advanced Calculus*.



Carew Meredith (1904-1976) was born 28 July in Dublin and was educated at Cambridge (Trinity). He worked as a university coach in England until the outbreak of WWII, when his pacifism saw him return to Ireland. He later taught maths and logic for 2 decades at TCD. His research on one-axiom bases for propositional calculus has seen new application in modern automated theorem provers.

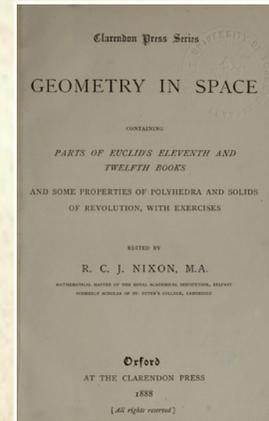
July

2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	
				1 Robert Ball (1840-1913)	2 Ross Geoghegan Diarmuid Ó Sé	3 Desmond McConnell Olivia Bree John Kinsella	
4 Edgar Harper (1880-1916)	5 Arthur Lai Fook (1919-2013)	6	7 John Kells Ingram (1823-1907) J.P. McCarthy	8 David Wilkins	9 Ciarán Mac an Bhaird	10 Cecily Nevill (1921-2002)	
11 Joseph Larmor (1857-1942) Lawrence Crane (1931-2021)	BATTLE OF THE BOYNE (NI)	12	13	14 Ivan Todorov	15 Jocelyn Bell Burnell Don McAllister	16 Marjorie J. Long (1886-1837)	17 William Davison (1937-2013) Richard M. Timoney (1953-2019)
18	19 Christine Horn	20 Paddy Kennedy (1929-1966) Brendan O'Sullivan	21 Áine Ni Shé Myrto Manolaki	22 George Kelly (1927-2009) Eugene Benilov Adrian Raftery	23 Helen Joyce Doireann O'Kiely	24	
25 Robert Goodbody (1850-1911) Daniel J. O'Connell (1896-1982) John G. Byrne (1933-2016) Rachel Quinlan Mark Daly	26 Richard Watson	27 Richard Ingram (1916-1967) Michael Murtagh (1943-2001)	28 Thomas Collier (1858-1934) Carew Meredith (1904-1976) Eleanor Nevill (1917-1999) John S. Bell (1928-1990) Rabia Naqvi	29 Sean Close Sinéad Breen	30 Martin J. Newell (1910-1985) Sara McMurry	31 Oliver Byrne (1810-1880) Killian Rohan (1916-1999) Michael Jamieson Oren Kolman (1959-2015)	



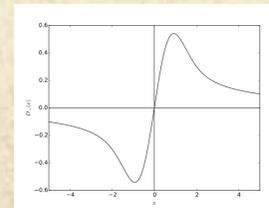
Willian Penny (1814-1892) was born 4 August in Addingham, Yorkshire, England, and was educated at Oxford (Christ). He was a clergyman (and friend of John Newman) before teaching maths for over a decade at Catholic University (later UCD).



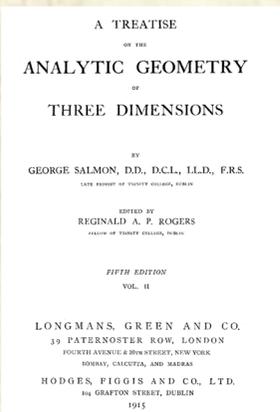
Randal Nixon (1840-1901) was probably born in August, in Worcester, England, and was educated at the University of London and at Cambridge (Peterhouse). He first taught at the Brewers Company Grammar School, and at Glasgow, then for at least 25 years at the Royal Belfast Academical Institution (where he taught Joseph Larmor). He authored the books *Euclid Revisited* and *Geometry in Space* while in Belfast.



Charles Coates (1853-1944) was born 25 August in Belfast and was educated at Queen's Belfast, and then at Cambridge (Trinity, 5th wrangler). He taught for decades at Birkbeck College on London.



Henry Dawson (1862-1918) was born 2 August in Omagh, Tyrone, and was educated at TCD and Cambridge (Christ). His career was spent at Cambridge and Firth College, Sheffield. He is remembered for the one-sided Fourier–Laplace sine transform of the Gaussian function, which is named after him.



Reginald Rogers (1874-1923) was born 10 August in Kilkenny city and was educated at TCD, where he spent his relatively short career, serving as Donegall Lecturer of math in his final years. He revised and considerably expanded the 5th edition of George Salmon's *A Treatise on the Analytic Geometry of Three Dimensions*. He also published verse, and wrote on time-direction, logic, and ethics.

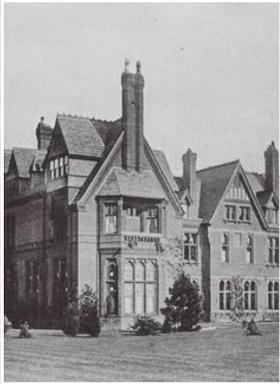


Margaret “Mina” Funston (1893-1968) was born 7 August in Tullycarn, near Pettigo, Donegal, and was educated at TCD, where she was also a maths scholar. She taught at Victoria College in Belfast.

August

2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
BANK HOLIDAY (RoI) 1	2 John Tyndall (1820-1893) Michael A. Hayes (1935-2017) Pauline Mellon	3 George Fitzgerald (1851-1901)	4 William Rowan Hamilton (1805-1865) Francis Murnaghan (1893-1976)	5 Joe McKenna	6 Liam Naughton	7 William Monypeny (1866-1912) Brendan McWilliams (1944-2007) Derek Kitson
8 Anraoi de Paor	9 Donal Garvey	10 Charlie Rogers	11 William Eakin (1912-1983) Lionel Lovitch John Miller	12 Erwin Schrödinger (1887-1961) Vincent Guerrini (1912-2000) Michael Mackey	13 George Stokes (1819-1903)	14
15	16 Felix Hackett (1882-1970)	17	18	19 Madeeha Khalid Aoife Hennessy Michael Salter-Townshend	20	21 Samuel Scott (1913-1980)
22 Philip Gormley (1910-1973) Natalia Kopteva	23	24 John Purser (1835- 1903)	25	26	27 James Booth (1860-1878) Thomas Lyle (1860-1944) Ralph Kenna	28 Caoimhín Ó Raghallaigh
BANK HOLIDAY (NI) 29 John Herivel (1918-2011) Dáibhí Ó Cróinín	30	31 Matrix x Imaginary Paris				



Mary Raymond (1864-1926) was born 14 September near Blennerville, Kerry. She was educated at Girton, but never received a degree due to Cambridge's policy on women. TCD later awarded her *ad eundum* degrees (1906). She taught for 3 decades at various schools in England and Wales.



Jane McCutcheon (1868-1956) was born 8 September in Limerick city. She grew up there, in Galway, Down, and Belfast. She was educated at Methodist College and Queen's Belfast, in 1891 becoming the first woman to get an honours maths BA in that city. She later taught at Methody for 30 years.



Richard Heron (1868-1931) was born 17 September in Dunadry, Antrim. He was educated at Queen's Belfast and at Cambridge (St John's). He taught briefly at Campbell College and later became an inspector of schools for Ireland.



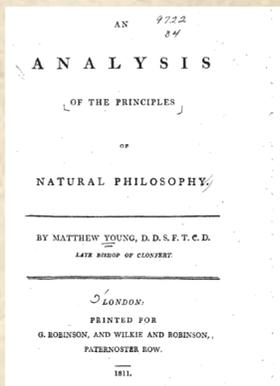
Rosa Patterson (1871-1960) was born 27 September in Holywood, Down, and was educated at Newnham College (BA earned but not awarded). A decade later she was awarded a teaching diploma by the University of Manchester, then TCD awarded her an *ad eundum* MA. She taught at numerous schools in England, in Wakefield, Manchester, Pendleton, York, and Chester. She died in Shropshire.



Olive McCormick (later Mottram, then Pride, 1889-1989) was born 23 September in Ahamplish, Carney, Sligo. She was educated at TCD, and taught for over a decade, in Nottingham, Lindisfarne, and Cheshire, in England. She ceased teaching upon marrying for the second time, but was widowed again by the age of 40. She died in Greystones just short of 100.



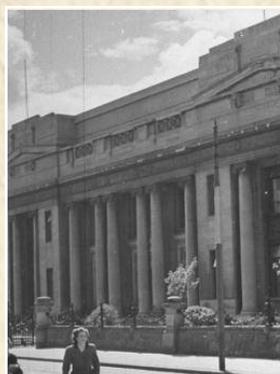
Henry Biggs (1882-1934) was born 16 September in Galway and later attended Portora in Enniskillen, where his father Richard (himself a TCD maths grad) was headmaster. He was educated at first at TCD, then worked at the Cavendish Lab. After a period at Manchester he settled at Oxford. He authored *Wave Mechanics: An Introductory Sketch* (1927) and one other book.



Matthew Young (1750-1800) was born 3 October in Castlerea, Roscommon, and was educated at TCD. He spent most of his career there, serving as Donegall Lecturer in Maths, and then Erasmus Smith's Professor of Natural & Experimental Philosophy. An ardent Newtonian, he published the books *An Enquiry into the Principal Phenomena of Sounds and Musical Strings* and *An Analysis of the Principles of Natural Philosophy*.



Edward Butler (1812-1902) was baptised 27 October in Dublin), and grew up mostly in France. He was educated at TCD, and worked for the board of national education for about 3 decades. In the middle of that, he was appointed the first professor of maths at Catholic University in Dublin in 1854, though he only stayed for 5 years. His books included *Supplement to the First Book of Euclid's Elements*.



Cecelia Ryan (1880-1962) was born 19 October in Bailieborough, Cavan. She graduated from the RUI (via study at St Mary's, Dublin) and a decade later from UCD (another bachelors and a masters). She taught in both Dublin and Belfast.



Hugh Combe (1907-1984) was born 18 October in Belfast, and grew up there and in Dublin, and was educated at QUB. His career included teaching at Municipal College of Technology (Belfast) and QUB, and then at Stranmillis for over 20 years. He authored 3 school textbooks, including *Relations and Functions*.



Margaret Knox (later Holmes, 1913-2015) was born 16 October in Belfast, and was educated at QUB, doing a master's by thesis. She taught in Exeter and possibly also in Sheffield, marrying in the latter in 1947. In 1958 she moved to Melbourne in Australia. She died in NZ, aged over 100.



Irene Edgar (1916-??) was born 13 October in Belfast, and was educated at QUB. She taught in Omagh Academy and then at Grosvenor High School in Belfast.

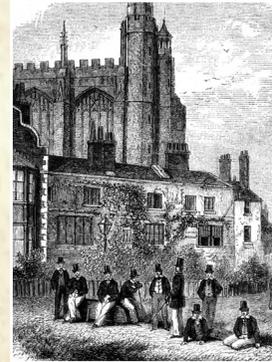
October

2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
					1 Alfred O'Rahilly (1884-1969) Stefan Hutzler	2 Arthur Conway (1875-1950) Jerry Dwyer
					Maths Week Scotland	Maths Week Scotland
3 Maurice O'Reilly	4 Mark Walsh Joe Travers	5 Iulian Mac Airt (1938-2012) Martin Meere	6 Ernest Walton (1903-1995) Claus K \ddot{o} stler	7	8 Patrick Wayman (1927-1998) Dane Flannery T. Brendan Murphy Paddy Johnson	9
	IMA Black Heroes of Mathematics Conference	IMA Black Heroes of Mathematics Conference				
10 Graham Ellis	11	12	13 John G. Smith (1881-1968) Pádraig de Brún (1889-1960) Ernan McMullin (1924-2011)	14 Éamon de Valera (1882-1975) Eabhnat Ní Fhloinn	15 Frank Hodnett (1939-2011) Anthony Small	16 Philip Maini
					Maths Week Maths in the City Dublin	Maths Week Munster Maths and Science Fair Hamilton Day
17 Denis Weaire	18 Robert MacFarland (1860-1922) Hugh Combe (1907-1984) Uno \check{N} h \check{p} ik (1926-2005) Phil Burke (1932-2019)	19 Olivia Fitzmaurice	20 Paddy Barry (1934-2021) Rafael Moral	21	22 Robert Dixon (1812-1885)	23 Percy McCormack (1929-2015)
Maths Week RIA Hamilton Lecture	Maths Week	Maths Week John Hooper Medal winner announced	Maths Week	Maths Week		
24 Owen McGrath	25 Brian Greer	26 Martin Bridgeman	27	28 Derek McNally (1934-2020)	29 Garfield Woods (1906-1973) Peter Taylor	30
OCTOBER BANK HOLIDAY (RoI) 31 Martyn Stynes Tony Seda						



Pierce Morton (1803-1859) was born 27 November in Kilnacrott, Drumrora, Cavan, and grew up there and in Devon, England. He was educated at Cambridge (Trinity, 6th wrangler), and published a new proof of the focus-directrix property of conic sections, and a book on geometry. Later, he was a magistrate back in Cavan, and he spent his final years at the Cape Observatory in South Africa.



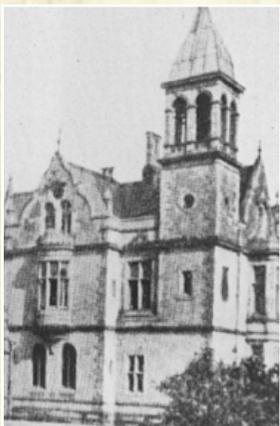
Annesley Somerville (1858-1942) was born 16 November in Ballincollig, Cork, and was at first educated at Queen's Cork. He then went to Cambridge (Trinity, 21st wrangler). He taught for many decades, mostly at Eton, and authored textbooks in French. The last 20 years of his life he was MP for Windsor.



James Workman (1866-1955) was born 16 November in Mullan, Aghadowey, Londonderry, and was educated at Queen's Belfast. He taught at Methodist College at first, and then in Simcoe, Ontario, Canada.



John Fraser (1868-1950) was born 7 November in Crosspatrick, Ballysakeery, Ballina, Mayo, and was educated at TCD, where he spent over 45 years on the staff.



William Lloyd (1880-1951) was born 22 November in Caven, Ballinalee, Longford, and was educated at TCD. His career was spent teaching in Belfast, first at Methodist College, and then at Stranmillis Training College.

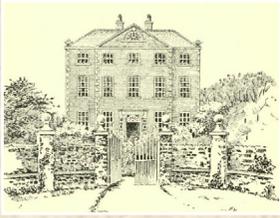


Daisy Wilson (1894-1970) was born 4 November in Derry city, and was educated at McCrea Magee College and at TCD. Her career included teaching at Barr's Hill School in Coventry, in the 1930s.

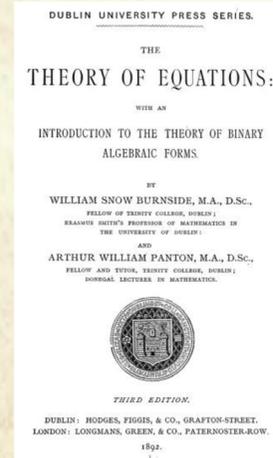
November

2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	1 Ted Stringer (1926-2015)	2 George Boole (1815-1864) Henry Smith (1826-1883) Anthony Traill (1838-1914)	3 Michael McGettrick	4 Cathal Cumming	5 Alan Newell David Jackson John Sheekey	6 Charles Graves (1812-1899)
7 John Fraser (1868-1950) Neil Dobbs (1917-1963)	8 Bram Stoker (1847-1912) Bob Critchley (1948-2007)	9 Fred Klotz (1943-1988) Gordon Lessells	10 Amy Woods (1894-1980)	11 Charles MacGarry (1877-1936) Jim O'Reilly (1916-1978)	12 Gerard Murphy (1948-2006)	13 James Thomson (1786-1849) Helena Smigoc
14	15	16 Stanley Lyon (1882-1975) Donal Linehan (1923-2006) Siddharta Sen Catherine Comiskey	17	18 Barry Spain (1914-2007) David Bates (1916-1994)	19 A.J. McConnell (1903-1993) Matt McCarthy (1938-2017) Aisling Twohill	Science Week 20
Maths week England Science Week IrMO 1st Round	Maths week England Science Week IrMO 1st Round	Maths week England Science Week IrMO 1st Round	Maths week England Science Week IrMO 1st Round	Maths week England Science Week IrMO 1st Round	IAMTA (Irish Applied Maths Association) Science Week	Science Week
21 Sean Swords (1930-2012)	22 Michele Destrade	23	24 Tony Dorlas	25	26 David Galvin	27
28	29 Joseph Galbraith (1818-1890) Colm Barry (1906-1976) Brendan Steen (1921-2015)	30				



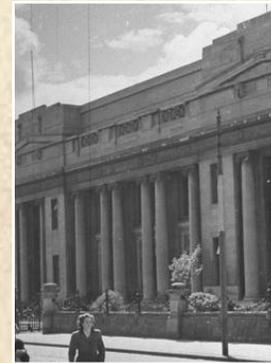
Pierre Delort (1758-1835) was born in December in Bordeaux, France, and was educated at Guienne College there. He was appointed the first professor of maths and natural philosophy at Maynooth in 1795, but returned to Bordeaux within 6 years.



W. Snow Burnside (1839–1920) was born 20 December near Fivemiletown, Tyrone, and was educated at TCD. He spent his entire career there, and served as Erasmus Smith's Prof of Maths. He co-authored the influential book *The Theory of Equations: With an Introduction to the Theory of Binary Algebraic Forms* with Arthur Panton (see May).



Eleanor Moss (1864-1946) was born 18 December in Dublin and was awarded an RUI BA via private study, and an Intermediate Certificate in Science by the University of London. She taught at Ardnagena School (Dublin), and then in England, first in Cumbria, and then served as headmistress at Edgbaston College in Birmingham for at least 25 years. She died in Cheltenham.



Charlotte Stack (1885-1975) was born 3 December in Dublin, and got an NUI BA via private study and study at Alexandra, as well as a UCD BSc. Her career included teaching in Fulham, London, in the 1930s.



Irene Gillespie (1900-1990) was born 20 December in Dublin, and was educated at TCD. Over 30 years of her half century teaching career was spent at Alexandra College in Dublin.



Mary McDonald (1900-1931) was born 31 December in Loughries, east of Newtownards, Down, and was educated to master's (by thesis) level at QUB. For the last 4 years of her short life, she worked as a missionary at Wesleyan Missionary Methodist College in Colombo, Ceylon, dying there of heart failure.

December

2022

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
			1 Raymond Flood	2 Ollie Mason	3 John Donaghey (1878-1949) Jim Flavin (1936-2012) Chris Brennan Declan P.Quinn	4 John Graves (1806-1870)
5 Tom Laffey Maura Clancy	6	7 Paddy Quinlan (1919-2001) Benno Moiseiwitsch (1927-2016) Peter McPolin (1955-2020) Brendan Guilfoyle	8 Mike Carroll (1936-2016)	9 SIAM Student Conference Galway	10	11 Allan Isaac (1936-2013) David Madigan
12	13 Eoghan McKenna (1891-1967) Bill McCrea (1904-1999) James Taylor (1929-2020) Tony Wickstead Ian Taylor	14	15	16 Andrew Young (1919-1992) Anthony Cronin	17 Grace Acheson Faris (1885-1973) Maurice Kennedy (1924-1994)	18 Eleanor Moss (1864-1946?)
19	20 W. Snow Burnside (1839-1920) Dave Redmond	21 WINTER SOLSTICE Samuel Haughton (1821-1897) First meeting of the Dublin Statistical Society (1847)	22 Nicholas Callan (1799-1864) John Harding (1911-1985?)	23	24 Harry Thrift (1882 - 1958) Jane Breen	25 CHRISTMAS DAY Patrick Dineen (1840-1934) John Malet (1847-1901) Tom Sherry Sonia Balagopalalan
26 ST STEPHEN'S DAY BOXING DAY	27 David Callan	28	29 Hugh Holohan (1892-1957)	30 Claire Gormley	31 Mary McDonald (1900-1931)	NEW YEAR'S DAY

There are many notable people for whom we cannot say what month they were born; there are even some for whom the year of birth is uncertain. To ensure that they are not lost to history in our annual wall calendars project, we are highlighting 6 of them on a bonus page of biographies this year. To balance the lack of facial images elsewhere in these pages, we have selected scholars for whom we do have images.



Mathematician and physician **Richard Helsham** (1683-1738) was born in Leggetsrath, Kilkenny, and was educated at TCD. He was Donegall Lecturer of Maths and served as the inaugural Erasmus Smith's Professor of Natural & Experimental Philosophy. He was also Regius Professor of Physic and was a renowned practicing physician. His influential *Lectures on Natural Philosophy* book was published posthumously.



Richard Murray (1725?-1799) was born in Down and was educated at TCD, where he also spent his entire career, serving as Donegall Lecturer, the second Erasmus Smith's Prof of Maths, and the provost. He authored the book *Artis logicæ compendium*, which appeared in translation by John Walker (see January) as *A Familiar Commentary on the Compendium of Logic* (or *Murray's Compendium of Logic*).



James MacCullagh (1809–1847) was born at Landahussey, just east of Plumbridge, Tyrone, and grew up there and near Strabane. He was educated at TCD, and was Erasmus Smith's Professor of Mathematics and then Erasmus Smith's Professor of Natural & Experimental Philosophy. In his too-short life he made many contributions to optics and geometry; Jellet & Houghton published his collected works in the early 1880s.



Arthur Curtis (1827?-1886) was born in Dublin, and was educated at TCD. He was professor of natural philosophy at Queen's Galway, where he authored books on both analytic geometry and gyroscopes, and then served as assistant commissioner for National Education until his death.



Martin Gardiner (1833?-1899) said he was born in Dublin. He attended Queen's Galway for a year or two. He worked as an engineer or surveyor in Canada in the 1850s and in Australia from the 1870s on. In the 1860s he taught maths at St John's College in Sydney, and published frequently on the topic. TCD geometer Richard Townsend (see April) thought highly of some of his work.



Bessie Anderson (1862?-1927) was born in Camus, Coleraine, Londonderry, and was educated at Queen's Galway, being the first woman to graduate from there. She taught at Victoria College and then at Rutland High School in Dublin. Her brother Alexander was professor of natural philosophy (and later president) at Queen's Galway.

January

2023

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
						NEW YEAR'S DAY 1
BANK HOLIDAY 2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					



IRISH MATHEMATICS CALENDAR 2022



This calendar, an annual treat since 2016, is a by-product of the **Annals of Irish Mathematics and Mathematicians**, which was founded at the end of 2014. **AIMM** is an entirely volunteer online initiative which aims to celebrate Irish mathematics and mathematicians both historic and modern: illustrating the proud historical and strong contemporary contribution to the world of mathematics and its applications, and consequently to the world at large. The project includes the **Gallery of Irish Mathematicians** (accounting for over 5000 people), the Library of Irish Mathematics (over 1000 books), the **Atlas of Irish Mathematics** (county by county listings, we are more than 90% done there) and regular **Maths Ireland Blogs** of relevance.

We have always striven whenever possible to display images of the people highlighted, mostly photographs but also portraits in the cases of scholars from hundreds of years ago. This year's calendar is a historical issue, focussing on people for whom we have no visual representation of any kind. In place of faces we show places with which they were associated, usually the university where they received their education. Breaking with tradition, we do not celebrate giants such as Hamilton and Boole, or the usual early women pioneers, or any living people. Yet the 72 people we do highlight from January to December are all noteworthy in their own ways.

We also feature a bonus page of six people whose likenesses are known to us, and are shared here, but we don't know what month they were born. Hence, we cannot assign them to one of the usual twelve monthly pages; people like Richard Murray and James McCullagh.

The project and blogs can be found on www.mathsireland.ie and followed on twitter at [@IrishMathsFacts](https://twitter.com/IrishMathsFacts)

Maths Week Ireland was established in 2006 to promote mathematics and its applications across the island of Ireland. It is coordinated by Calmast STEM Engagement Centre at Waterford Institute of Technology. Taking place every October in the week including the 16th - Hamilton Day- it quickly grew quickly into the biggest festival of its kind in the world, reaching an estimated 400,000 people in 2021. It is a partnership of universities, institutes of technology, teacher-training colleges, professional bodies, visitor centres and other groups concerned with mathematics. More information can be found at www.mathsweek.ie or followed on twitter at [@mathswweek](https://twitter.com/mathswweek)



An Roinn Oideachais
Department of Education

