#### BSHM-CSHPM/SCHPM Programme 2021 – Timetable + List of Speakers & Titles

#### **Contents:**

READ THIS FIRST – p.1 Timetable – p.2 Speakers & Titles – p.10

#### **READ THIS FIRST**

Plenary recordings will be played live, but will also be available beforehand (links in the timetable)

Other presentations will be recorded. Each group of recordings will have a *live discussion session*. You should *aim to watch recordings before* attending the relevant live discussion. Links to the recording playlists are provided in the timetable below, with an indication of their length. Within each playlist numbers give the intended watch order.

Links to the Rooms for live sessions are being sent by email on 10/11 July. If you have not received the email by 12 July, check your junk/spam folder, and any other email addresses you may have given us. If you really cannot find it, contact <u>ijf3@st-andrews.ac.uk</u>

Full speaker names and talk titles are in the third section of this programme. For fuller details see the Abstract Booklet

Recordings will be available for a few days after the conference, but will then be taken down.

Most recordings have accurate closed captions. To turn subtitles on, click this icon at the the bottom right of the recording.

Sessions are numbered by their Room and live time *slot*. Some also have a qualifier: (S)=symposium, (P)=philosophy focused, (E)=education focused.

e.g.

1.2(S) = Room 1, time slot 2, symposium 1.3(PS) = Room 1, time slot 3, philosophy-focused symposium 2.3(E) = Room 2, time slot 3, education focused

Times are given as: BST = British Summer Time, e.g. London (UTC+1) EDT = Eastern Daylight Time, e.g. Toronto (UTC-4) PDT = Pacific Daylight Time, e.g. Vancouver (UTC-7)



# Monday 12 July

Day/Time	Room 1: Murray (link sent in email 10/11 July)	<b>Room 2: Ledermann</b> (link sent in email 10/11 July)	Room 3: Gregory (link sent in email 10/11 July)
Mon 12 July	Recordings will be released by Sun 11 July,	om	
13.00 BST 08.00 EDT 05.00 PDT		Social Brunch (Room 3, and gather.town)	
13.45 BST		Welcome: Sarah Hart & Craig Fraser (Room 3)	
14.00 BST 09.00 EDT 06.00 PDT	Plenary 1 (live): Brendan Larvor: Mathema	itical Memes in the Age of Reason: the limits of limits Chair: Craig Fraser (Room 3) ( <u>Recording link</u> )	of understanding and the understanding
Recording links	Recording playlists for Monday Room 1 <u>Session 1.1</u> (65 mins) <u>Session 1.2</u> (100 mins) <u>Session 1.3</u> (55 mins)	Recording playlists for Monday Room 2 <u>Session 2.1</u> (40 mins + 35 mins) <u>Session 2.2</u> (60 mins) <u>Session 2.3</u> (55 mins)	Recording playlists for Monday Room 3 <u>Session 3.3</u> (55 mins) (Room links sent in email 10/11 July)
<b>Slot 0</b> 15.00 BST 10.00 EDT 07.00 PDT	Remember to watch recordings before attending the live discussions (Room links sent in email 10/11 July)	Remember to watch recordings before attending the live discussions (Room links sent in email 10/11 July)	Live activity (Room 3): Open Virtual Worlds tour of medieval and early modern St Andrews: Rhodes & Miller
<b>Slot 1</b> 16.00 BST 11.00 EDT	<b>1.1(P) Live Discussion (Room 1)</b> Giovannini, Steensen, Bradley	<b>2.1 Live Discussion (Room 2)</b> Hollings, Medrano, Megremi	Live activity (Room 3): Mathematically Curious St Andrews I (virtual HoM walk) O'Reilly, McClure, Stones, Li

08.00 PDT	Chair: Snezana Lawrence	Chair: Jim Tattersall	
	16.40-17.00 Break	16.40 Break	17.40 Break
<b>Slot 2</b> 17.00 BST 12.00 EDT 09.00 PDT	<b>1.2(S) Live Discussion (Room 1)</b> <i>Epistolary Mathematics</i> : Deias, Dumas Primbault, Michel, Stenhouse Chair: June Barrow-Green	<b>2.2 Live Discussion (Room 2)</b> Polhill, Therrien, Friedman Chair: Raffaele Pisano	
	17.40 Break	17.40 Break	
<b>Slot 3</b> 18.00 BST 13.00 EDT 10.00 PDT	<b>1.3(PS) Live Discussion (Room 1)</b> <i>Maths &amp; the dialogue</i> : Kant, Wilck, Hamami Chair: Dirk Schlimm	<ul><li>2.3(E) Live Discussion (Room 2)</li><li>Pritchard, Hagiopian, Hitchcock</li><li>Chair: Amirouche Moktefi</li></ul>	<b>3.3 Live Discussion (Room 3)</b> Ackerberg-Hastings, Huffman, de Young Chair: Abe Edwards
	18.40 Break	18.40 Break	18.40 Break
19.00 BST 14.00 EDT 10.00 PDT	Plenary 2 (live): Vale	eria Giardino: Proving with Graphs: The Math Chair: Sarah Hart (Room 3) ( <u>Recording link</u> )	ematician's Toolkit
20.00 BST 15.00 EDT 11.00 PDT		<b>Social Quiz</b> organised by Brigitte Stenhouse (Room 3)	

## Tuesday 13 July

Day/Time	Room 1: Murray (link sent in email 10/11 July)	<b>Room 2: Ledermann</b> (link sent in email 10/11 July)	<b>Room 3: Gregory</b> (link sent in email 10/11 July)	
Tue 13 July	Recordings will be released by Mon 12 July	pm		
13.00 BST 08.00 EDT 05.00 PDT		Social Brunch (Room 3 & gather.town)		
14.00 BST 09.00 EDT 06.00 PDT	Plenary 3 (live): Evelyne Barbin: Int	Plenary 3 (live): Evelyne Barbin: Introducing an historical perspective in mathematical teaching: meaning and practices Chair: Snezana Lawrence (Room 3) ( <u>Recording link</u> )		
Recording links	Recording playlists for Tuesday Room 1 <u>Session 1.4</u> (105 mins) <u>Session 1.5</u> (55 mins) <u>Session 1.6</u> (60 mins)	Recording playlists for Tuesday Room 2 <u>Session 2.5</u> (65 mins) <u>Session 2.6</u> (45 mins)	Recording playlists for Tuesday Room 3 Session 3.4 (65 mins) Session 3.6 (60 mins)	
<b>Slot 4</b> 15.00 BST 10.00 EDT 07.00 PDT	Remember to watch recordings before attending the live discussions	2.4(E workshop) Live (Room 2): "Entrance into All Obscure Secrets" drama in the classroom Hitchcock register in advance (desirable but not	Live Activity (Room 3): Digital Storytelling with St Andrews' exhibit.so tool Lenihan	
		essential)	15.40 Break	
<b>Slot 4 (cont)</b> 16.00 BST 11.00 EDT 08.00 PDT	<b>1.4(PS) Live Discussion (Room 1)</b> Informal Formalization: O'Brien, Heller, Rohr, Dunning Chair: Michael Barany		<b>3.4(S) Live Discussion</b> <i>British &amp; German Applied Maths</i> : Barrow- Green, Maidment, Siegmund-Schultze Chair: Chris Hollings	
	16.40 Break	16.40 Break	16.40 Break	

<b>Slot 5</b> 17.00 BST 12.00 EDT 09.00 PDT	<ul> <li><b>1.5 Live Discussion (Room 1)</b></li> <li>D'Antonio, <del>Biaszczyk,</del> Baltus</li> <li>Chair: Steve Russ</li> <li>17.40 Break</li> </ul>	<ul> <li>2.5(S) Live Discussion</li> <li>Practices of Mathematical Antiquaries:</li> <li>Corrigan, Oosterhoff, Ashman</li> <li>Chair: Louisiane Ferlier</li> <li>17.40 Break</li> </ul>	
<b>Slot 6</b> 18.00 BST 13.00 EDT 10.00 PDT	<b>1.6(P) Live Discussion (Room 1)</b> Waszek, Ashton, Muntersbjorn Chair: Brendan Larvor	2.6(E) Live Discussion White, Rogers, Boman Chair: Maurice OReilly	<b>3.6 Live Discussion</b> Dunn, Verburgt, Bailey Chair: Chris Pritchard
19.00 BST 14.00 EDT 10.00 PDT	18.40 Break Plenary 4: Robin Wil	18.40 Break son: The diaries of Thomas Archer Hirst – Mathe Chair: Brigitte Stenhouse (Room 3) ( <u>Recording link</u> )	18.40 Break matician Xtravagant
20.00 BST 15.00 EDT 11.00 PDT		The Unbelievable Truth" organised by Mark McG (Room 3) eting for CSHPM members. You should have beer	

## Wednesday 14 July

	Room 1: Murray (link sent in email 10/11 July)	Room 2: Ledermann (link sent in email 10/11 July)	Room 3: Gregory (link sent in email 10/11 July)
Wed 14 July	Recordings will be released by Tue 13 July p	m	
13.00 BST 08.00 EDT 05.00 PDT		Social Brunch (Room 3 & gather.town)	
14.00 BST 09.00 EDT 06.00 PDT	Plenary 5 (live): Colm Mulcahy: The Scottish Irish Mathematical Trail: People, Places, Practices Chair: Ursula Martin (Room 3) ( <u>Recording link</u> )		
Recording links	Recording playlists for Wednesday Room 1 <u>Session 1.7</u> (40 mins + 50 mins) <u>Session 1.8</u> (35 mins) <u>Session 1.9</u> (55 mins)	Recording playlists for Wednesday Room 2 <u>Session 2.7</u> (60 mins) <u>Session 2.8</u> (50 mins) <u>Session 2.9</u> (70 mins)	Recording playlists for Wednesday Room 3 Session 3.7 (55 mins) Session 3.9 (40 mins)
15.00 BST 10.00 EDT 07.00 PDT	Remember to watch recordings before attending live discussions	Remember to watch recordings before attending the live discussions	Live Activity: Special Collections "Show & Tell" I Falconer
			15.40 Break
<b>Slot 7</b> 16.00 BST 11.00 EDT	<b>1.7 Live Discussion (Room 1)</b> Duffee, Blasjo, Pisano	<b>2.7 Live Discussion</b> Barany, Kapatou & Gray, Fraser	<b>3.7 Live Discussion</b> Melville, Blanco, Alexander
08.00 PDT	Chair: Brendan Larvor	Chair: Zoe Ashton	Chair: TBC
	16.40 Break	16.40 Break	16.40 Break

<b>Slot 8</b> 17.00 BST 12.00 EDT 09.00 PDT	<b>1.8(S) Live Discussion (Room 1)</b> <i>Linguistic Hospitality</i> : Misra, Amini Chair: Glen van Brummelen	<b>2.8(E) Live Discussion</b> Bjarnadóttir, OReilly, Dumbaugh & Polhill Chair: Jim Bennett	Live Activity: Fictional letters between Alicia Boole Stott and Lucy Everest Boole Chas
	17.40 Break	17.40 Break	17.40 Break
<b>Slot 9</b> 18.00 BST 13.00 EDT 10.00 PDT	<ul> <li><b>1.9 Live Discussion (Room 1)</b></li> <li>Domingues, Edwards, Horowitz</li> <li>Chair: Snezana Lawrence</li> <li>18.40 Break</li> </ul>	<ul> <li>2.9 Live Discussion</li> <li>Silva &amp; Freitas, Zack, Otero</li> <li>Chair: Danny Otero</li> <li>18.40 Break</li> </ul>	<b>3.9 Live Discussion</b> Beeley, Tattersall & McMurran Chair: K Falconer 18.40 Break
19.00 BST 14.00 EDT 10.00 PDT		aces: The American Mathematical Research Com Émigrés, 1933-1938 Chair: Craig Fraser (Room 3) ( <u>Recording link</u> )	
20.00 BST 15.00 EDT 11.00 PDT	Social: Board Gar	<b>nes Night,</b> organised by Calum Naughton, Kate F (Room 3)	lindle and others

## Thursday 15 July

	Room 1: Murray (link sent in email 10/11 July)	Room 2: Ledermann (link sent in email 10/11 July)	<b>Room 3: Gregory</b> (link sent in email 10/11 July)
Thu 15 July	Recordings will be released by Wed 14 July	pm	
13.00 BST 08.00 EDT 05.00 PDT		Social Brunch (Room 3 & gather.town)	
14.00 BST 09.00 EDT 06.00 PDT	Plenary 7: Edmund Ro	obertson & John O'Connor: A history of the devel Chair: Amy Shell-Gellasch (Room 3) ( <u>Recording link</u> )	opment of MacTutor
Recording links	Recording playlists for Thursday Room 1 <u>Session 1.10</u> (55 mins) <u>Session 1.11</u> (65 mins) <u>Session 1.12</u> (55 mins)	Recording playlists for Thursday Room 2 Session 2.10 (60 mins) Session 2.11 (30 mins)	Recording playlists for Thursday Room 3 Session 3.10 (60 mins) Session 3.12 (60 mins)
15.00 BST 10.00 EDT 07.00 PDT	Remember to watch recordings before attending live discussions	Remember to watch recordings before attending live discussions	Live activity: Mathematically Curious St Andrews II (virtual HoM walk) Kent, Anand, Reed, Misra
<b>Slot 10</b> 16.00 BST 11.00 EDT 08.00 PDT	<b>1.10(P) Live Discussion</b> Abeles, Moktefi, Schlimm Chair: Robin Wilson	<b>2.10(S) Live Discussion</b> <i>Early Modern St Andrews</i> : Duréault, Houlton, Schmid Chair: Pilar Gil	15.40 Break <b>3.10 Live Discussion</b> Gulizia, Monteiro, Burdick Chair: Madeline Muntersbjorn
	16.40 Break	16.40 Break	16.40 Break

<b>Slot 11</b> 17.00 BST 12.00 EDT 09.00 PDT	<ul> <li><b>1.11(S) Live Discussion</b></li> <li><i>Invisible Power</i>: Senechal Lorenat,</li> <li>Dumbaugh, Turner, Despaux</li> <li>Chair: Jemma Lorenat</li> </ul>	<b>2.11 Live Discussion</b> Van Weerden, K.Falconer Chair: Abe Edwards	
	17.40 Break	17.40 Break	
<b>Slot 12</b> 18.00 BST 13.00 EDT 10.00 PDT	<ul> <li>1.12(S) Live Discussion</li> <li><i>Real Numbers in Transition</i>: López, Guillén,</li> <li>Ferreirós,</li> <li>Chair: Davide Crippa</li> <li>18.40 Break</li> </ul>		<b>3.12(S) Live Discussion</b> <i>Women in Computing</i> : Monro, Allan, Martin Chair: Isobel Falconer 18.40 Break
19.00 BST 14.00 EDT 10.00 PDT	Plenary 8	<b>3: Raymond Flood &amp; Robin Wilson:</b> <i>50 years of th</i> Chair: Sarah Hart (Room 3) ( <u>Recording link</u> )	e BSHM
20.00 BST 15.00 EDT 11.00 PDT	A	nother Social Quiz organised by Kenneth Falconer (Room 3)	r

## **Conference Finished**

Remember that recordings only be available for a few days after the conference, then they will be taken down

#### Speakers & Titles In programme order Monday 12 July

Mon 12 July			
Time	Session	Titles	Speakers
13.00 BST, 08.00 ED	T, 05.00 PDT	Social Brunch	
13.45 BST, 08.45 ED	T, 05.45 PDT	Welcome	
14.00 BST, 09.00 EDT, 06.00 PDT		Plenary 1: Mathematical Memes in the Age of Reason: the limits of understanding and the understanding of limits	Brendan Larvor Chair: Craig Fraser
15.00 BST, 10.00 ED	T, 07.00 PDT	Live Activity: Open Virtual Worlds tour of medieval and early modern St Andrews	Open Virtual Worlds Project Team (Bess Rhodes and Alan Miller)
Slot 1	1.1	From Euclidean to Hilbertian practice: the theories of plane area	Eduardo N. Giovannini
16.00-16.40 BST	DISCUSSION	The mathematical use of graphic position in C. F. Hindenburg's combinatorial school	Anna Kiel Steensen
11.00-11.40 EDT 08.00-08.40 PDT		Convergence and Divergence in the Works of François-Joseph Servois	Robert Bradley Chair: S Lawrence
	2.1	Thomas Eric Peet, historian of mathematics	Christopher Hollings
	DISCUSSION	'As if their knots were letters': Uncovering Analogy in Colonial Accounts of Andean Khipu Mathematics	Manuel Medrano
		Mathematical commentary as a mathematical milieu: being introduced in the world of the Palatine Anthology (10th century CE).	Athanasia Megremi Chair: Jim Tattersall
	3.1	Live Activity: Mathematically Curious St Andrews I	Gerry O'Reilly and STEP project students

Slot 2	1.2(S) DISCUSSION	Epistolary Mathematics: Production, negotiation, and circulation of mathematical knowledge in letter correspondence	Dalia Deias, Simon Dumas Primbault, Nicolas Michel and Brigitte Stenhouse
17.00-17.40 BST			Chair: June Barrow-Green.
12.00-12.40 EDT	2.2 DISCUSSION	Bryn Mawr College, 1885-1940: The People, Places, and Practices that Helped One Institution Thrive	Madeline Polhill
09.00-09.40 PDT		On Counting as Mathematical Progress: Kuratowski-Zorn's Lemma and the Path Not Taken	Valerie Therrien
		A geographical seclusion? On the Italian "school" of braids of Oscar Chisini between the 1930s and 1950s	Michael Friedman Chair: Raffaele Pisano
<b>Slot 3</b> 18.00-18.40 BST	1.3(PS) DISCUSSION	Mathematics and the Dialogue	Deborah Kant, Benjamin Wilck, Yacin Hamami Chair: Dirk Schlimm
13.00-13.40 EDT	2.3(E)	Life of pie: William Playfair and the advent of statistical diagrams	Chris Pritchard
10.00-10.40 PDT	DISCUSSION	Napier's Rules in US H.S. Trigonometry - a history	Geoff Hagopian
		Corrupt Land Inspectors: Solving equations with picture-language in ancient Mesopotamia, a dialogue	Gavin Hitchcock Chair: Amirouche Moktefi
	3.3	Analysis and Synthesis in Robert Simson's The Elements of Euclid (1756)	Amy Ackerberg-Hastings
	DISCUSSION	Agnesi vs. Colson: Did Place Matter?	Cynthia Huffman
		From Proclus to Albertus Magnus: Transmission of a collection of "proofs" of Euclid's postulates	Gregg De Young Chair: R Abraham Edwards
19.00 BST, 14.00 ED	T, 11.00 PDT	Plenary 2: Proving with graphs: the mathematician's toolkit	Valeria Giardino and Frederic Patras Chair: Sarah Hart
20.00 BST, 15.00 ED	T, 12.00 PDT	Social Event: Quiz	

## Tuesday 13 July

Tue 13 July			
	Session	Titles	Speakers
13.00 BST, 08.0	0 EDT, 05.00 PDT	Social Brunch	
14.00 BST, 09.0	0 EDT, 06.00 PDT	Plenary 3: Introducing an historical perspective in mathematical teaching: meaning and practices	Evelyne Barbin Chair: S Lawrence
<b>Slot 4</b> 15.00 BST, 10.00 EDT,	2.4(E w/shop, 100 mins)	"Entrance into All Obscure Secrets": A workshop on bringing episodes in the history of mathematics to life in the classroom by means of theatre, incorporating a short play set in an ancient Egyptian scribal school. <i>Special Advance Registration Required. Volunteers sought to take the parts</i>	Gavin Hitchcock
07.00 PDT	Room 3	Live activity: Demonstration of Special Collections' exhibit.so tool	Sophie Lenihan
<b>Slot 4 (cont)</b> 16.00-16.40 BST, 11.00- 11.40 EDT, 08.00-08.40	1.4(S) DISCUSSION	Informal Formalization	Jenne O'Brien, Henning Heller, Tabea Rohr and David Dunning Chair: M Barany
PDT	3.4(S) DISCUSSION	British and German applied mathematics around 1900 – some commonalities and some differences as exemplified by Henrici, Whittaker, and von Mises	June Barrow-Green, Alison Maidment, and Reinhard Siegmund-Schultze Chair: Chris Hollings
Slot 5	1.5 DISCUSSION	Clairaut Repeals the Inverse Square Law	Lawrence D'Antonio
17.00-17.40 BST		Euler's expansion of cos x function	Piotr Błaszczyk
12.00-12.40 EDT		Leading to Poncelet: A story of collinear points	Christopher Baltus Chair: Steve Russ
09.00-09.40 PDT	2.5(S) DISCUSSION	The Practices of Mathematical Antiquaries in Early Modern Britain	Richard Oosterhoff, Alexander Corrigan, and Lewis Ashman Chair: Louisiane Ferlier

		Activity?	
Slot 6	1.6(P) DISCUSSION	Notational naturality in Leibniz and Lagrange	David Waszek
18.00-18.40 BST		Formal Rigor and Mathematical Environments	Zoe Ashton
13.00-13.40		Feature Language and the History of Algebra	Madeline Muntersbjorn Chair: Brendan Larvor
EDT 10.00-10.40 PDT	2.6(E) DISCUSSION	The role of faculty development in supporting adoption of curricular modules to teach undergraduate (tertiary) mathematics using primary historical sources	<del>Diana White</del>
		Using the Story of Calculus to Teach Differential Calculus	Robert Rogers
		A Story of Real Analysis; An Open Educational Resource Textbook	Eugene Boman Chair: Maurice OReilly
	3.6 DISCUSSION	From the Local to the Global: The Evolution of Statistical Thought and Practice in the Eighteenth Century	Adam Dunn
		"Any scheme of allowing for errors is a makeshift for removing them": Francis Galton, John Venn and the unofficial Cambridge Anthropometric Laboratory	Lukas M. Verburgt
		Latin squares at Rothamsted Experimental Station in the time of Fisher and Yates	Rosemary Bailey Chair: Chris Pritchard
19.00 BST, 14.	.00 EDT, 11.00 PDT	Plenary 4: The diaries of Thomas Archer Hirst – Mathematician Xtravagant	Robin Wilson Chair: Brigitte Stenhouse
20.00 BST, 15.00 EDT,	Channel 1	Social Event: "The Unbelievable Truth" (history of maths version of a popular BBC quiz show)	Mark McCartney
12.00 PDT	Channel 2	CSHPM Meeting (90 mins)	Craig Fraser

## Wednesday 14 July

Wed 14 July			
	Session	Titles	Speakers
13.00 BST, 08.00 EDT, 05.00 PDT		Social Brunch	
14.00 BST, 09.00 EDT, 06.00 PDT		Plenary 5: The Scottish Irish Mathematical Trail: People, Places, Practices	Colm Mulcahy Chair: Ursula Martin
15.00 BST, 10.00 EDT, 07.00 PDT	Room 3	Live Activity: Special Collections "Show & Tell"	Isobel Falconer
Slot 7	1.7 DISCUSSION		
16.00-16.40 BST 11.00-11.40 EDT 08.00-08.40 PDT		Ghosts of Mathematics Past	Anne Duffee Chair: Brendan Larvor
		Algebraic versus geometric thought and expression in the early calculus	Viktor Blasjo
		Reading the Culture of Machines Bordering Early Mechanics and Mathematical Practices: Influential—&—Heritages within the Relationship Physics-Mathematics into History	Raffaele Pisano
	2.7 DISCUSSION	Bibliographic globalization in the history and historiography of modern mathematics	Michael Barany
		Greek Women in Mathematics: From Antiquity to Al	Alexandra Kapatou & Mary Gray
		Constantin Carathéodory and the Theory of Canonical Transformations	Craig Fraser Chair: Zoe Ashton
	3.7 DISCUSSION	The mathematical papers of RFA Lee	Duncan Melville
		Pedro Padilla and his Military Course of Mathematics (1753-56): Teaching Higher Geometry in Eighteenth-Century Spain	Monica Blanco
		Euler's Construction of a Continued Fraction for e using Differential Equations	Marion Alexander Chair: TBC

Slot 8 17.00-17.40 BST 12.00-12.40 EDT 09.00-09.40 PDT	1.8(S) DISCUSSION	Linguistic hospitality in mathematical works: Arabic?, Persian? and Sanskrit	Anuj Misra, Hasan Ameni Chair: Glen van Brummelen
	2.8(E) DISCUSSION	Nordic Cooperation on Modern Mathematics at Primary Level 1960-1968	Kristín Bjarnadóttir
		Developing an online exhibition of selected mathematical works from Marsh's Library, Dublin: an early modern library through the eyes of undergraduate mathematics students	Maurice OReilly
		The Genesis of Americanmathematics.org: A People, Places, and Practices Classroom Experience	Della Dumbaugh & Madeleine Polhill Chair: Jim Bennett
	3.8	Live Activity: Fictional letters between Alicia Boole Stott and Lucy Everest Boole	Moira Chas
Slot 9 18.00-18.40 BST 13.00-13.40 EDT 10.00-10.40 PDT	1.9 DISCUSSION	Geometry and analysis in José Anastácio da Cunha's fluxionary calculus	João Caramalho Domingues
		All the Lines: Cavalieri's "Geometria indivisibilibus" and the End of the Jesuati	Abe Edwards
		Mathematics and Morality: A Very Early Manuscript of Colin MacLaurin	David Horowitz Chair: S Lawrence
	2.9 DISCUSSION	On the first Portuguese book on mathematics	Jorge Nuno Silva and Pedro Freitas
		Early Computations on the Cycloid	Maria Zack
		From latitudo formarum to graphs of functions	Daniel Otero Chair: Daniel Otero
	3.9 DISCUSSION	'Dr Gregory's scheme'. Reforming mathematics at the English universities around 1700	Philip Beeley

	A Cambridge Correspondence Course in Arithmetic for Women	James Tattersall and Shawnee McMurran Chair: Kenneth Falconer
19.00 BST, 14.00 EDT, 11.00 PDT	Plenary 6: People in New Places: The American Mathematical Research Community and the First Wave of Mathematical Émigrés, 1933-1938	Karen Parshall Chair: Craig Fraser
20.00 BST, 15.00 EDT, 12.00 PDT	Social: Board games night	

## Thursday 15 July

Thu 15 July			
	Session	Titles	Speakers
13.00 BST, 08.00 EDT, 05.00 PDT		Social Brunch	
14.00 BST, 09.00 EDT, 06.00 PDT		Plenary 7: A history of the development of MacTutor	Edmund Robertson & John O'Connor Chair: Amy Shell-Gellasch
15.00 BST, 10.00 EDT, 07.00 PDT		Activity: Mathematically Curious St Andrews II	Deborah Kent & STEP project students
Slot 10 16.00-16.40 BST 11.00-11.40 EDT 08.00-08.40 PDT	1.10(P) DISCUSSION	Hugh MacColl's Logic: Christine Ladd-Franklin's Remarkable Opinion	Francine Abeles
		Hugh MacColl, mathematical reviewer for "The Athenaeum"	Amirouche Moktefi
		MacColl's reflections on logical notations	Dirk Schlimm Chair: Robin Wllson
	2.10(S) DISCUSSION	Mathematicians, Astronomers and Innovators at the University of St Andrews in the Early Modern Period	Meredith Houlton, Philippe Schmid, Ella Duréault Chair: Pilar Gil
	3.10 DISCUSSION	The Mathematical Network of Nicolaus Granius (1569-1631): Mathesis, Copernicanism and Scribal Technology in Helmstedt	Stefano Gulizia
		Joseph Bertrand and the positivists: on the Transatlantic circulation of Auguste Comte's mathematical texts	Rogério Monteiro de Siqueira
		Three Generations of Printers and Almanac Authors in Seventeenth Century Mexico	Bruce Burdick Chair: Madeline Muntersbjorn
<b>Slot 11</b> 17.00-17.40 BST 12.00-12.40 EDT	1.11 DISCUSSION	Invisible power: journal editors and the publication of mathematics	Jemma Lorenat, Della Dumbaugh, Laura Turner, Sloan Despeaux and Marjorie Senechal. Chair: Jemma Lorenat

09.00-09.40 PDT	2.11 DISCUSSION	Sir William Rowan Hamilton: the influence of the 1880s temperance struggles on his posthumous reputation	Anne van Weerden
		John Couch Adams - From Neptune to St Andrews	Kenneth Falconer Chair: R Abraham Edwards
<b>Slot 12</b> 18.00-18.40 BST	1.12(S) DISCUSSION	Real Numbers in Transition: aspects of the 18th and 19th centuries	Eduardo Dorrego López , José Manuel Ferreirós Domínguez and Elías Fuentes Guillén Chair: Davide Crippa
13.00-13.40 EDT 10.00-10.40 PDT	3.12(S) DISCUSSION	Women in British Computing in the 20th Century	Verity Allan, Mary Monro and Ursula Martin Chair: Isobel Falconer
19.00 BST, 14.00 EDT, 11.00 PDT		Plenary 8: 50 years of the BSHM	Raymond Flood & Robin Wilsons Chair: Sarah Hart
20.00 BST, 15.00 EDT, 12.00 PDT		Conference Close & Final Social (Quiz with Kenneth Falconer)	