The Euler Society Newsletter

Volume 1, number 1 January, 2002 Visit The Euler Society home page at <u>http://www.eulersociety.org</u>.



Join The Euler Society.

Use the membership form at the end of this Newsletter. \$50 per year.

Call for Papers

The Euler Society calls for papers to be presented at the E2K+2 Conference, August 4-7, 2002 (See below). The Call for Papers is on line at <u>http://www.euler2007.com/CallForPapers 1.htm</u>or you can contact the Editor at <u>esandifer@earthlink.net</u> and he will send you a copy..

Euler and Andrew Wiles?

Did Andrew Wiles follow in Euler's footsteps when he worked in secret on one of his era's great unsolved problems? We all know the story of Andrew Wiles and his seven years in the attic working in secret on Fermat's Last Theorem. Did Euler work in secret on the Basel Problem, his first great mathematical breakthrough? In one of his early papers, E-20 (O.O. I.14 25-41), written in 1730/31, Euler gives a six decimal place approximation of the value of Zeta(2). Other than that, though, he doesn't seem to mention the Basel Problem either in his papers or his correspondence until he publishes the complete solution in E-41, "De summis serierum reciprocarum", written in 1734/35 and published in 1740. (O.O. I.14 73-86)

At the Bookstore

Here we review books and other resources on Euler that should be still available in bookstores and on line. Please send ideas for book reviews to the editor at <u>esandifer@earthlink.net</u>

Dunham, William, Euler The Master of Us All, Mathematical Association of America, 1999. You can order it from the MAA. One of the best writers of mathematics surveys Euler's ground breaking contributions to eight areas of mathematics. A "Greatest Hits" book of Euler's mathematics.

In the Treasure Room

We describe books and other resources on Euler that are out of print, or may even be called "antiquarian," so that readers might know what to look for in libraries and used book stores and what they might be getting if they buy or bid on line. Please send ideas for book reviews to the editor at <u>esandifer@earthlink.net</u>

Rudio, Ferdinand, *Leonhard Euler*, Zürcher & Furrer, Zürich, 1909. Paperback, bound with staples, approx 6"x9". A short 15-page biography of Euler in German. This booklet is a reprint of the text of an address that Rudio gave in 1883 at a celebration of the 100th anniversary of Euler's death. Rudio was a founding member of the editorial committee of the *Opera Omnia* and edited several of the early volumes, including some on number theory.

Price cut for the Opera Omnia?

Ten years ago, <u>Birkhäuser</u>, the publishers of Euler's *Opera Omnia*, sold volumes of Series I for about \$65. About the time they were bought by Springer Verlag, the prices soared to the range of \$190 to \$220, and it was very difficult to get them delivered in North America. Now, with the advent of the Euro, <u>Birkhäuser's web site</u> offers them for E 150 (150 Euros, about \$135). We optimistically await reports of improved service.

Call for limericks

Continuing a vile tradition in newsletters of Certain Societies on the History or Philosophy of Mathematics, we shamefacedly solicit limericks, clerihews, haiku and other short poetry related to the life, works and influence of Leonhard Euler. Send them to the Editor at <u>esandifer@earthlink.net</u>.

Call for contributions

The Newsletter will gladly include short contributions about Euler, his life, works and influence, and we will provide links to longer contributions. Contact the Editor at <u>esandifer@earthlink.net</u>.

Euler in San Diego

Historians of Mathematics enjoyed some lively sessions at the Joint Mathematics Meetings in San Diego in early January. Of course, Euler was a popular topic. Here are short descriptions of some of the talks about Euler.

"Euler and Cevians" - Homer White, Georgetown College

A really nice talk about one of Euler's late papers, E-749 (O.O. I.26 344-358) about when the sides of a triangle can be translated to make cevians of a new triangle. For our readers who are not Geometers, the figure at the right illustrates what cevians are. They are three line segments, each joining a vertex of a triangle with a point on the opposite side, with the special property that the three segments intersect in a single point. Segments Aa, Bb and Cc are cevians because they all pass through the point F. In this paper, Euler admits to "longae ambagae", or "extensive wanderings."



Cevians of triangle ABC

"The Quadrature of Lunes, from Hippocrates to Euler" – Stacy Langton, University of San Diego

Euler followed up on Hippocrates' work with papers in 1737 (E-73 O.O. I.26 1-14) and 1771 (I'm not sure what paper this is), showing that there really aren't very many lunes for which Hippocrates' construction works.

"The crescents of Hippocrates from the second millennium BCE to the second millennium CE" – Una Bray, Skidmore College

Una added to the remarks Stacy Langton had made the day before, and showed how some lunes are almost constructible.

"Euler and the Greatest Homework Ever" - Ed Sandifer, Western Connecticut State University.

An account of how Euler did the first general work on Calculus of Variations as a homework assignment for his mentor in Basel, Johann Bernoulli. The homework was published and is E-9 (O.O. I.25 1-12)

"Priority, Propriety and Polemic: The Euler-d'Alembert Correspondence" – Robert Bradley, Adelphi University Rob told us how Euler and d'Alembert got along for a while, then didn't, and compared how their lives were so similar in some ways, so different in others.

HOMSIGMAA

The MAA has a new Special Interest Group, HOMSIGMAA (History of Mathematics Special Interest Group of the Mathematical Association of America), which came into being as the result of hard work by Rob Bradley and Amy Shell. HOMSIGMAA doesn't yet have a page at the <u>MAA Web site</u>. For now, it's hosted by Rob Bradley <u>here</u>.

Upcoming Math History events

February 6, 2002	Bill Dunham at the Pohle Colloquium, Adelphi U. Garden City, NY. It's not Euler, but it's Bill
-	Dunham.
April 15, 2002	Leonhard Euler's 295 th birthday
May 24-26, 2002	<u>CSHPM</u> annual meeting - Toronto
August 1-3, 2002.	MathFest in Burlington, Vermont
August 4-7, 2002	E2K+2, Rumford, Maine. See below.

Euler 2K+2

The Euler Society's first big event is scheduled for Rumford, Maine August 4-7, 2002, hot on the heels of the MathFest in Burlington. You can register on line at <u>http://www.euler2007.com</u>

On This Date in Euler's Life

We use Old Style dates for events in Russia, New Style elsewhere.

January 7, 1751	Euler reads E-245, (0.0. I.22) "De methodo Diophantaneae analoga in analysi infinitorum" in
	Berlin.
January 14, 1751	Euler reads E-250 (O.O. I.25 98-122)"Sur le probleme isoperimetrique" to the Berlin Academy.
January 18, 1748	Euler reads E-148 (O.O. I.26 46-59), "Sur le nombre des points oú deux lignes des orders
	quelconques peuvent se couper" before the Berlin Academy.
February 1, 1748	Euler reads E-149, (O.O. III.2)"Réflexions sur l'Espece et sur le Tems" before the Berlin Academy.
February 6, 1766	Bernoulli reads Euler's last two Berlin papers, one on Lunar theory (E-401 O.O. II.26) and one on optics (E-360 O.O. III.7)
February 23, 1747	Euler reads E-100 (O.O. I.2 59-61), On Amicable Numbers, before the Berlin Academy, and increases the number of known pairs of amicable numbers from 3 to 30
February 27, 1773	Euler's last letter from d'Alembert

The Mission

The Mission of **The Euler Society** is threefold: It encourages scholarly contributions examining the life, research, and influence of Leonhard Euler. In part, these will be set within his times, that is, within the Enlightenment, the rise to European power status of Russia and Prussia, and the growth of royal science academies. **The Euler Society** will also explore current studies in the mathematical sciences that build upon his thought. And it will promote translations into English of selections from his writings, including correspondence and notebooks, in leading up to the tercentenary of his birth in 2007.

The Euler Society Executive Committee

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Membership Form

To join **The Euler Society** or to renew your membership, please fill out this form and send it with a check for \$50 US to

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