



## **Euler's Publication Record During the Seven Years' War**

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# The Seven Years' War

- ◆ Runs from 1756-1763, with skirmishes in North America from 1754
- ◆ Britain & Prussia vs. France, Austria, & Russia
- ◆ Conflicts on three continents; arguably the first global war
- ◆ Britain victorious over France, Prussia victorious over Austria
- ◆ Resulting financial strain leads to turmoil in British colonies, eventual collapse of French government



Frederick II of Prussia, at the  
Battle of Zondorf (1758)

# The War in Prussia

**29 Aug 1756** – Prussia begins war by invading Saxony.

**1757-58** – Prussia fends off multiple invasion attempts.

**Oct 1757** – Berlin raided by Austrian troops; departed in exchange for 200,000 thalers & 24 pairs of ladies' gloves. [A]

**1759-60** – Prussia badly defeated at Kunersdorf and Landeshut, Berlin raided again on 9-11 October 1760.

**5 Jan 1762** – Russian Empress Elizabeth dies, succeeded by her Prussophile nephew, Peter III.

**Feb 1763** – Treaty of Hubertusberg ends the war for Prussia.



Austrian & Russian troops  
raid Berlin (9 Oct 1760)

# Euler in Wartime Berlin

**Summer 1756** – Maupertuis leaves Berlin for a warmer climate, making Euler acting president.

**Summer 1757** – Academic salaries cut in half to accommodate war spending; salaries would remain frozen until war's end. [C, pp. 412, 420]

**1757-59** – Correspondence with Russia becomes difficult. [C, p. 421]

**1758** – Euler busy deciphering & translating letters from Russian officers. [C, p. 414]

**July 1759** – Maupertuis dies in Switzerland.

**1760-63** – Publication delays for *Mémoires*. [C, p. 420]

**May-Aug 1763** – D'Alembert visits Berlin; Frederick offers him the Academy presidency. D'Alembert declines. [C, p. 431]

**1764** – Frederick names *himself* academy president. [C2, p. 242]

**1766** – Euler accepts a new offer to return to Russia.

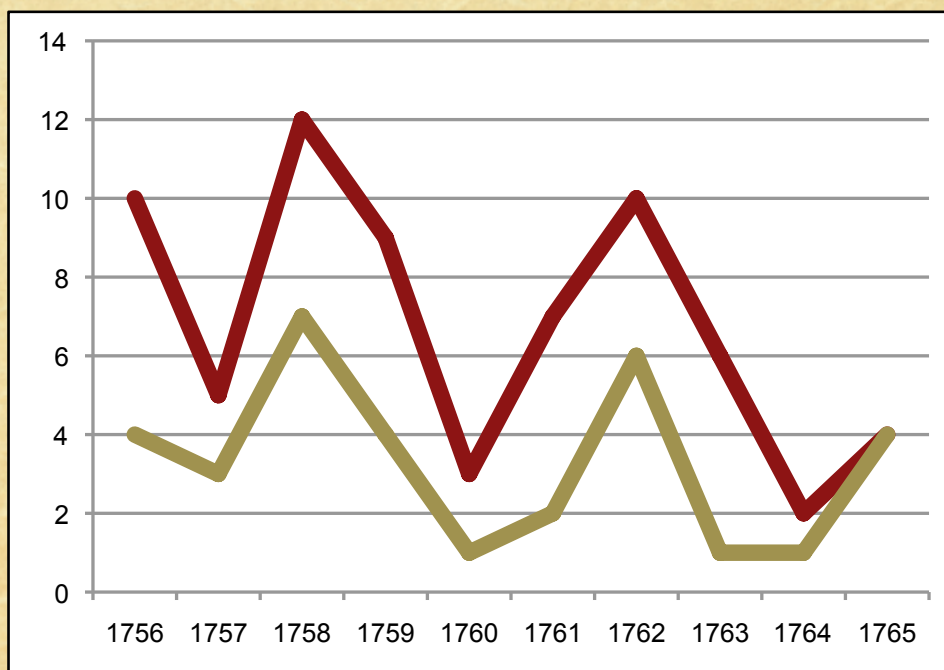


Portrait of Euler by Jakob Handmann (1756)

# Mining the Eneström Index

*Papers presented at the Berlin Academy*

Year	# papers presented	# papers to <i>Mémoires</i>
1756	10	4
1757	5	3
1758	12	7
1759	9	4
1760	3	1
1761	7	2
1762	10	6
1763	6	1
1764	2	1
1765	4	4

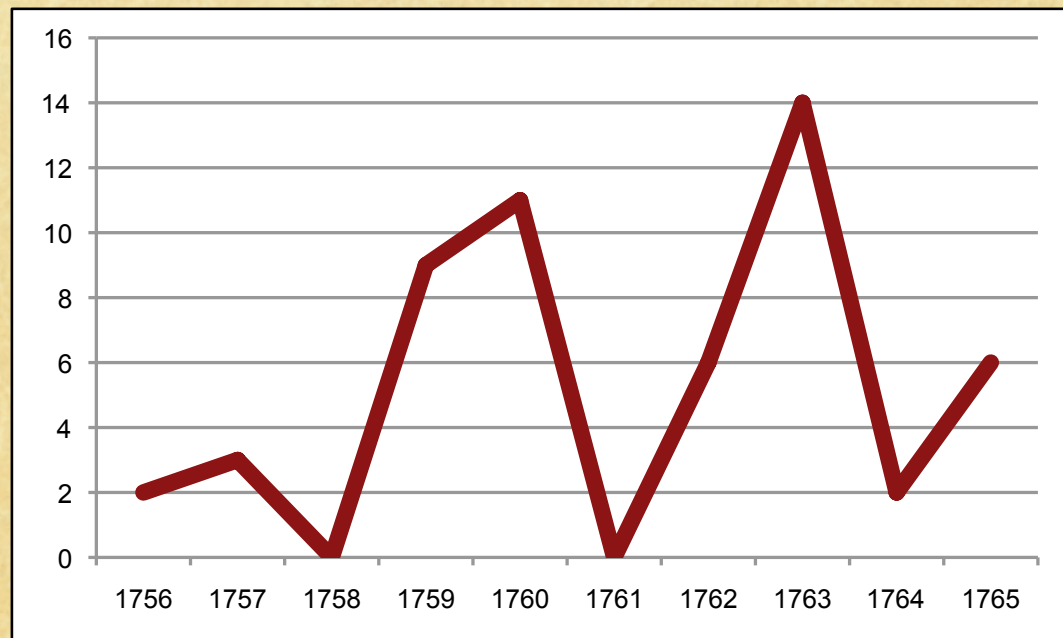


Note: *Theoria motus corporum solidorum seu rigidorum* was completed in 1760 and *Letters to a German Princess* written in 1760-62.

# Mining the Eneström Index

*Papers presented at the St. Petersburg Academy*

Year	# papers presented
1756	2
1757	3
1758	0
1759	9
1760	11
1761	0
1762	6
1763	14
1764	2
1765	6



Note: Those papers presented first at the Berlin Academy took about 1 year to be presented in St. Petersburg.

# Batch Delivery

*Arrival of papers at the St. Petersburg Academy*

Date	# papers presented
8 Mar 1756	2
13 Jan 1757	3
15 Oct 1759	9
1 Dec 1760	11
17 May 1762	6
23 May 1763	5
21 Dec 1763*	9
23 Aug 1764	2
19 Dec 1765	7

## Notes:

- Each of these presentation dates (except one \*) falls on a Monday in the Julian calendar.
- Of the 11 papers presented on 1 Dec 1760, Eneström lists only one as having been presented at Berlin in 1760.

# Mining the Eneström Index

*Publication delays in the Berlin Mémoires*

<b>Vol.</b>	<b>Papers from</b>	<b>Appeared</b>	<b>Gap (yrs)</b>
10	1754	1756	2
11	1755	1757	2
12	1756	1758	2
13	1757	1759	2
14	1758	1765	7
15	1759	1766	7
16	1760	1767	7
17	1761	1768	7
18	1762	1769	7
19	1763	1770	7
20	1764	1766	2
21	1765	1767	2
22	1766	1768	2

Note: no comparable publication delays in the *Novi Commentarii* during this time.

# Mining the Eneström Index

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<b>Vol.</b>	<b>Papers from</b>	<b>Appeared</b>
10	1754	1756
11	1755	1757
12	1756	1758
13	1757	1759
14	1758	1765
15	1759	1766
20	1764	1766
16	1760	1767
21	1765	1767
17	1761	1768
22	1766	1768
18	1762	1769
19	1763	1770

“Although the issues for 1760-63 [Vols. 14-17] were mainly completed on time and ready for the press, d’Argens advised the king not to print these, for d’Argens needed the paper for state business and the academy did not. D’Argens recommended that their publication be suspended as long as there was no president...”

[C, p. 420]

# Euler's Books

*Calculus, mechanics, and more...*

*Instituionum calculi integralis* – mostly written by 1759, published 1768-70.

Eneström: "... one can see from Euler's letter to Lagrange on October 2, 1759, that a meaningful portion of the work was already edited."

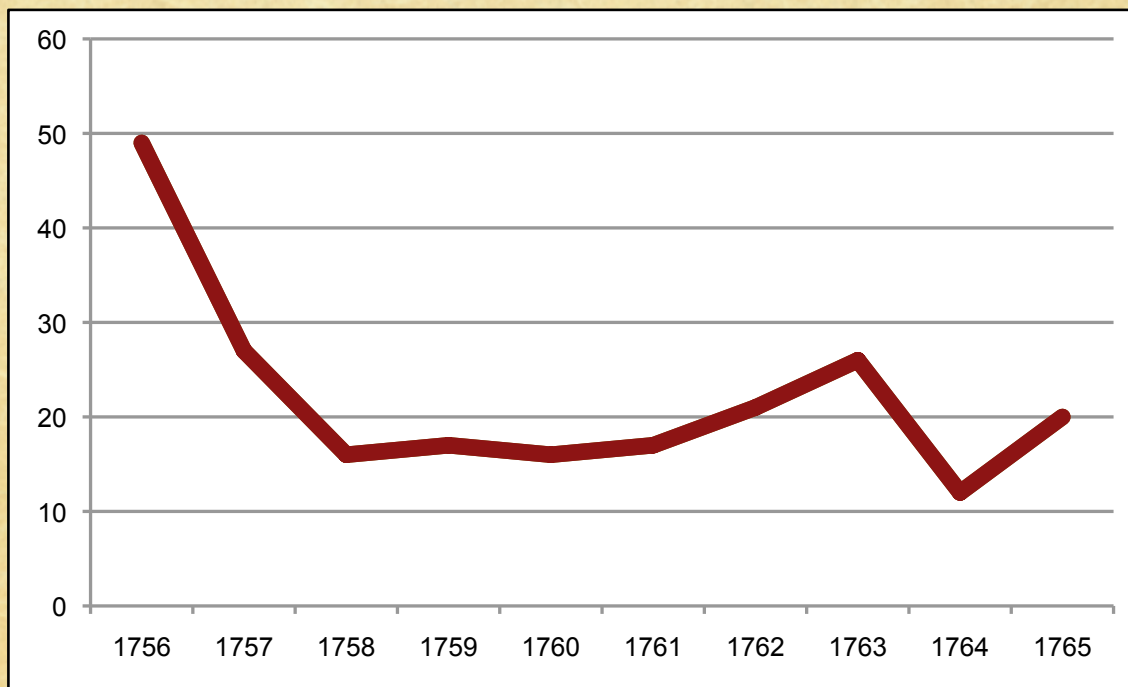
*Theoria motus corporum solidorum seu rigidorum* – completed by 1760, published 1765.

Eneström: In the foreword, Karsten [the publisher] says "...the work was completed by 1760 and that he had received the manuscript at the beginning of 1761."

*Lettres à une princesse d'Allemagne* – written between April 1760 and May 1762, published 1768-72.

# Euler's Correspondence

Year	# letters written (00)
1756	49
1757	27
1758	16
1759	17
1760	16
1761	17
1762	21
1763	26
1764	12
1765	20



Euler to Maupertuis, Sept 1757: “correspondence with St. Petersburg is completely broken” [C, p. 421]

Note: Some of Euler's correspondents died during this time — Maupertuis (1759), Schumacher (1761), Goldbach (1764).

# Observations & Conclusions

Correspondence with St. Petersburg was indeed difficult in the early war years:

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Euler begins pivoting to St. Petersburg

- 14 papers sent to *Novi Commentarii* in 1763 at war's end, while *Mémoires* were behind schedule
- Drop in number of papers presented in Berlin
- 1764 was a slow year for some reason – drop in presentations, correspondence

# References

- [C] Calinger, Ronald. “Leonhard Euler: Mathematical Genius in the Enlightenment.” Princeton University Press, 2016.
- [C2] Calinger, Ronald. “Frederick the Great and the Berlin Academy of Sciences.” *Annals of Science* **24**, Issue 3 (1968).
- [E] Eneström, Gustav. “Die Schriften Eulers chronologisch nach den Jahren geordnet, in denen sie verfasst worden sind” (“The writings of Euler, ordered by the year in which he wrote them”), Jahresbericht de Deutschen Mathematiker-Vereinigung, 1913. English translation by Greta Perl, available at <http://eulerarchive.maa.org>.
- [A] Asprey, Robert. “Frederick the Great: the Magnificent Enigma.” Ticknor & Fields, 1986.