

# EULER'S FIRST LETTER TO D'ALEMBERT REDISCOVERED

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Leonhard Euler's extant correspondence contains approximately 3100 letters exchanged with nearly 300 correspondents. For historians of mathematics, the correspondence with Jean le Rond d'Alembert, Daniel Bernoulli, Christian Goldbach and Johann Andreas von Segner is of special interest. In 1967, the Swiss Euler Committee decided to complement the three series (mathematics; mechanics and astronomy; physics and miscellaneous) of the *Opera omnia Leonardi Euleri*, initiated in 1907, by an additional series containing his letters as well as his manuscripts. The first four volumes of the series IVA of Euler's correspondence have meanwhile been edited; five additional volumes are expected to be published in the next few years.

While researching the network of one of Euler's correspondents, Johann Caspar Wetstein, the present author discovered Euler's first letter to d'Alembert. Part of this letter is a guarded answer to d'Alembert's former request of support in his views against some of the ideas Daniel Bernoulli had published in his *Hydrodynamica* of 1738. The main part of the letter, however, contains the essentials of the theory of the vibrating string that Euler was to publish a few years later. This letter will be presented for the first time at the 6th International Conference of the European Society for the History of Science in Lisbon.