# Extract from the *Comptes rendus*[1]
## 29 August 1853

   **Mr. Cauchy** presented to the Academy some observations relative to the object of the Memoir of which the lecture is just heard, and to the Notes inserted into the *Comptes rendus* by his honorable colleague M. Bienaymé. In one of these Notes, Mr. Bienaymé demanded that it was explicated how the Memoir read by Mr. Cauchy 12 August had been cut into two. The response is quite simple. The regulation relative to the impressions had not permitted to insert it in entirety. It is again for the same reason that the Memoir read at the last session has not been inserted into the *Compte rendu* of that session. The regulation has not permitted to imprint anything other than his title alone, although the Memoir had been immediately deposed on the bureau of the Academy in order to be sent to the printer. Mr. Cauchy regrets it much. The subject treated by his colleague and by himself interest in the highest degree astronomers and geometers who have without ceasing need to resolves some systems of approximate equations. Besides it is not astonishing that one is able, as Mr. Bienaymé has remarked, to deduce from the same calculations of Mr. Cauchy, a more exact and more rigorous demonstration which is returned to the method of least squares. Because that which Mr. Cauchy has proposed, it is precisely to put into evidence the advantages and the inconveniences of the diverse methods, especially of the method of least squares, and to show in what cases they are applicable. The analysis to the aid of which one had established the properties of the method of least squares is supported on some series, of which the convergence is not demonstrated. Mr. Cauchy has replaced this analysis by some exact and rigorous formulas . These last formulas are principally contained in a Memoir read at the last session and in the one which he presents even today to the Academy, and which has for title: *Mémoire sur les résultats moyens d'un très-grand nombre d'observations.* Mr. Cauchy demands that, seeing the importance of the subject, the Academy may wish well to order the publication of the first Memoir[2] in the *Compte rendu* of the session today, and that the second Memoir,[3] the one that he presents at this moment, let it be initialed by Mr. the perpetual Secretary, in order to be inserted into the *Compte rendu* of the next session.

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[2]*Translator's note*: This is "Sur la plus grande erreur à craindre dans un résultat moyen, et sur le système de facteurs qui rend cette plus grande erreur un minimum," item 529 of the *Oeuvres Complète*. Read at the session of 22 August 1853 but published with the records of 29 August.

[3]*Translator's note*: This is "Mémoire sur les résultats moyens d'un très-grand nombre des observations," item 530 of the *Oeuvres Complète*. Read at the session of 29 August 1853 and published with the records of the next session.