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(*b.* Montluçon, France, 8 December 1594 or 31 December 1598; *d.* Lagny-sur-Marne, France, 20 August 1677),

physics, astronomy.

The son of a minor provincial official, Petit spent his early adult life as *contrôleur de l'élection* in Montluçon. In 1633 he traveled to Paris and was appointed Commissaire Provincial de l'Artillerie by Richelieu; he became Intendant Général des Fortifications in 1649. Petit's governmental career was complemented by an active role in French science for more than four decades.

A member of the group of savants meeting at [Marin Mersenne](#)'s lodgings in the Place Royale, he exemplified those investigators who, in contrast to the increasingly doctrinaire Cartesians, emphasized the importance of accurate experimental observation in validating scientific theories. Petit criticized the lack of adequate astronomical facilities, which he thought had prevented the French from keeping abreast of observations made elsewhere in Europe, and urged the establishment of a royal observatory. His private collection of telescopes and instruments was among the best in Paris and included a number of his own inventions, most notably a perfected filar micrometer later used by Cassini I.

Petit worked with or knew many of the major scientists of the period. In 1646 he collaborated with [Blaise Pascal](#) in Rouen and repeated Torricelli's experiment on the barometric vacuum. A regular correspondent of [Henry Oldenburg](#), Petit was keenly interested in the scientific studies pursued in England and played a central role in facilitating the exchange of ideas and inventions between the two national communities. His *Dissertation sur la nature des comètes* (1665) was praised in England and on the Continent for the accuracy and completeness of its observations and discussion; his studies on magnetic declination were equally well-praised. A leading member of the Montmor Academy, Petit was a forceful advocate for the creation of an official science organization. He was, however, ignored by Colbert in the initial selection of members of the Academie Royale des Sciences in 1666; this surprising disappointment was partially compensated for by Petit's election as one of the first foreign fellows of the [Royal Society](#) of London in April 1667.

BIBLIOGRAPHY

I. Original Works. Petit's major scientific writings include *L'usage ou le moyen de pratiquer par une règle toutes les opérations du compas de proportion* (Paris, 1634); *Dissertation sur la nature des comètes... avec un discours sur les pronostiques des eclipses et autres matieres curieuses* (Paris, 1665); *Dissertations academiques sur la nature du froid et du chaud... avec un discours sur la construction et l'usage d'un cylindre arthemétique, iuventé par le menu' autheur* (Paris, 1671).

Petit gave a model account of his and Pascal's experiments in a letter to Pierre Chanut (French Ambassador to Sweden) dated 26 November 1646; the letter is reprinted in [Blaise Pascal](#), *Oeuvres complètes*, Léon Brunschvicg and Pierre Boutroux, eds., I (Paris, 1908), 325–345. The account was published the following year as *Observation touchant le vuide faite pour la premiere fois en France* (Paris, 1647).

Petit gave an account of his filar micrometer, in which he acknowledged the simultaneous development of the same instrument by Auzout and Picard, in "Extrait d'une Lettre de M. Petit Intendant des Fortifications... touchant une nouvelle machine pour mesurer exactement les diamètres des astres. Du 12 Mars 1667," in *Journal des sçavans*, no. 9 (16 May 1667). Petit's complete bibliography is somewhat confused, since a number of his works have been attributed by some to another Pierre Petit of Paris, a prolific medical writer and historian as well as a contemporary of Petit. Thus Petit's *Observationes aliquot eclipsium solis et lunae, cum dissertationibus de latitudine Lutetiae, et declinatione magnetis, necnon de novo systemate mundi quod anonymus dudum proposuit*, published with Jean-Baptiste Du Hame's *Astronomia physica* (Paris, 1660), is incorrectly attributed by the [British Museum Catalogue](#) to Petit the medical writer and historian. Finally, Petit's letters to Oldenburg are reprinted in A. Rupert Hall and Marie Boas Hall, eds., *The Correspondence of Henry Oldenburg* (Madison, 1965–), *passim*.

II. Secondary Literature. Details concerning Petit's life and work are given in *Biographic universelle*, J. Michaud, ed., XXXII (repr. Graz, 1968), 588–589; and Jean Pierre Nicéron, *Mémoires pour servir à l'histoire des hommes illustres dans la republique des lettres*, 42 (Paris, 1741), 191–195. On Petit's collaboration with Pascal, see Pierre Humbert, *L'oeuvre scientifique de Blaise Pascal*, (Paris, 1947), pp. 73 ff. A useful account of Petit's activities in Parisian scientific circles is given by Harcourt Brown, *Scientific Organizations in Seventeenth Century France* (Baltimore, 1934), *passim*.

