10. THE APOCRYPHAL RESIGNATION LETTER FROM PR. JAMES MORIARTY, THE AUTHOR OF *THE DYNAMICS OF AN ASTEROID* AND *A TREATISE ON THE BINOMIAL THEOREM*[1]

Gian Italo Bischi
(University of Urbino, Italy)

In the archives of Durham University[2], we discov-

1 This apocryphal letter has been translated by Luca Sartori.
2 This is obviously a game. Nevertheless, it seems that Moriarty attended Durham University according to Nick Rennison's *The Unauthorized Biography* (2005). Durham University is a university with long traditions and a world top 100 university. The oldest of its 16 colleges, University College, was founded in 1832. We thank Stephen Little of the Marketing Team at Durham University for kindly permitting us to use their logo here.

ered this letter of resignation undersigned by esteemed Professor James Moriarty. It was recorded on September 18th, 1890, and filed as follows:

RE: Resignation of chair of Mathematics and Astronomy at Durham University from Professor James Moriarty.

Dear Mr Chancellor,

It is with heartfelt regret that I am writing this letter in my own hand to announce my irrevocable resignation from the chair I have held in this university for so long a time, and which I meritoriously acquired in virtue of my renowned *Treatise on the Binomial Theorem*, one of the most celebrated dissertations in mathematics published over the last decades. Then, sometime later and following this publication of my early academic years, came my masterpiece, or the worldwide known work of my maturity *The Dynamics of an Asteroid* whose notoriety has crossed the borders of the British Isles, having been a subject of study and research for many a graduate of the major European athenaeums as well as quoted by many an illustrious colleague who taught or still teach in German, French and Italian reputable universities. Nevertheless, some disparaging fellow, perhaps envious of my just renown, began to spread calumnious rumours about myself, at first through groundless accusations of alleged plagiarism concerning several passages of my works, and

then venturing shameless aspersions about my private life and intimate acquaintances. Now I can but resolutely deny all of these infamous accusations, which have come out of the blue, of course, and are as frail as a castle made of sand. The same goes, obviously, for the anonymous letters that you received, whose only purpose is to disgrace my reputation without actual evidence and solely by means of inferences which I am quite ready to rebut one by one in this missive of mine.

In regard to the accusations of plagiarism concerning several passages of my treatise upon the development of the binomial resuming and expanding the studies of our illustrious fellow-citizen Isaac Newton and introducing a practical method for calculating the binomial coefficients, they actually are totally self-serving inferences, the result of ignorance and bad faith. In this treatise, in fact, I expounded a relevant discovery partly included in my dissertation in mathematics and consisting of a decisive refinement of an algorithm nowadays known as the method of Moriarty's triangle and introducing a practical, intuitive approach to calculate the coefficients of a binomial power formally described by Newton at the end of the seventeenth century. In an anonymous letter it is maintained that the same scheme was already known as "Tartaglia's triangle" after the name of an Italian mathematician, Nicolò Tartaglia, who lived in the sixteenth century. Nonetheless, we do not have evidence about that. The anonymous author of this impudent letter also claims that examples about the use of the same numeric triangle were found in treatises written by Chinese mathematicians and dating back to the fourteenth century, and yet he, once again, provides no evidence about what

he states; and, genteel Chancellor, permit me to say that in such a case we have entered the misty world of legend and myth. Upon my honour, the simple truth is that my treatise introduced the famous numeric triangle in a university publication for the first time in history. This is the reason why I firmly claim my paternity in academic spheres, and even if some unknown chap living in some unknown and uncivilized country had really conceived anything akin to my theorem, I was not bound to be acquainted with it and, as a consequence, I never could have quoted it. I was, moreover, only twenty-one years old when I wrote my treatise, and its fundamental concept originated from my immense and uncommon genius which had distinguished me from my contemporaries since the very early days of youth, an innate quality hard to conceal and, on the other hand, easy to be appreciated by my classmates, who have always regarded me as their sole leader and inspirer.

As to *The Dynamics of an Asteroid*, a work written at the height of my manhood which has become a reference treatise owing to its terseness of style and profound insightfulness of contents, I must make it clear that it deals with a topic which has aroused the curiosity of mathematicians and astronomers only of late. The very first asteroid was indeed seen on the first of January, 1801, by the Italian astronomer Giuseppe Piazzi of the Observatory in Palermo. It was discovered by sheer chance, and they resolved to call it Ceres. Piazzi, nevertheless, could no longer observe its orbital motion for, on the eleventh of February, it entered a conjunction and became invisible. At a time when the astronomers were

not able to determine the orbit of a celestial body, they lost sight of Ceres; in April Piazzi disclosed his remarks which were subsequently published in September 1801. It was the great German mathematician Carl Friedrich Gauss who, at the age of only twenty-four, provided the astronomers with the mathematical method to reconstruct Ceres' orbit on the basis of three simple observations. So it went that, on the thirty-first of December, 1801, Franz Xaver von Zach and Heinrich were able to point their telescopes unhesitatingly and could at last acknowledge the rediscovering of Ceres. Since then the search for unknown asteroids has aroused the interest of impassioned mathematicians and astronomers, and the undersigned is now looking for new heavenly bodies in the space between Mars and the Earth as well.

Although I am availing myself of the method of square minimums suggested by Gauss, it does not mean I have forged him; my scientific investigations are by no means a mere copy and possess their own originality, since I have renovated Gauss' method and applied it to a revolutionary approach of mine to discover unknown asteroids. I may have omitted this piece of information, perhaps, but by now my method and approach have been placed in the public domain.

On the contrary, I must confess that the sourest pill to swallow have been the rumours which, more and more constantly, are still being spread with the utmost malice and bias about my frequent night rambles in the streets of London and my supposed visits to the darkest and most ill-famed places. Well, I cannot deny I often have withdrawn to ill-lit and scarcely frequented places

of the crowded capital, but if I did so, I did it for the sake of astronomy and to comply with my keen interest in this noble science. It is indeed well known that to observe the sky with the naked eye or a spyglass requires complete darkness, as it is also well known that the urban lights of London, with all its dwellings and streetlamps, prevents the careful watcher from discerning the smallest luminous objects twinkling in the celestial vault. We could say that urban unnatural illumination obscures the natural darkness of the sky at night, a phenomenon which some people are beginning to call "light pollution". We know, moreover, that the city where I live, London, was the first city in the world to introduce public illumination, its streets having been lit by gaslight since 1807. Furthermore, it has lately been one the first capitals to be equipped with incandescent light bulbs: the first ones appeared in 1878 and, even worse, they were followed by luminous tubes of shop signs shortly afterwards. How can we protect ourselves from this bright light invasion? He who wants to behold the night sky is perforce compelled to hide himself in the darkest recesses of the glittering metropolis.
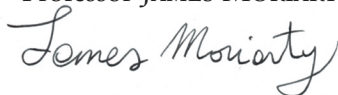
The gents I am accustomed to meeting in the night-time in these dark recesses are everything but scoundrels, of course, having an amateurish penchant for watching astronomical spectacles, such as passing comets and asteroids. Otherwise, I never could have written such a brilliant treatise on the asteroid which has brought me great renown of late, perhaps even greater than the one I have earned with my theory on the binomial theorem, which, though finely expounded, was admittedly addressed to a narrower circle of readers.

And, moreover, had I not carried out these night observations, how could I have imparted my celebrated lessons in astronomy well known throughout the whole United Kingdom, to the extent that every year we can see many a pupil who, having experienced the glamour of major universities, arrive at our minor institution all the same?

In conclusion, notwithstanding the high esteem in which several colleagues held me and the even higher reputation I enjoy among my students, and, of no less importance, considering the venomous letters written by anonymous scandalmongers who have tried to besmirch my name, and, even worse, taking note of the slanderous rumours running among the university clerks who shoot me suspicious glances and gossip behind my back, I have finally resolved to resign from the chair I have held for so many a year. As a matter of fact, my resignation is irrevocable, since I intend to leave the small, provincial town of Durham once and for all to return to my beloved London. I am fully aware that the price I am going to pay for my decision is dear; and if, on the one hand, I am renouncing a prestigious chair and a not less worthy salary, I am quite sure, however, that I will be able to establish myself in London and perform a variety of high-minded activities which will also ensure me adequate means of subsistence.

Yours faithfully,

Professor JAMES MORIARTY