

Large Jan Marek Marci 1595 - 1667

Large Jan Marek Marci was a famous physician, philosopher and the first Czech physicist. He was a contemporary of Galileo and he lived in Prague during the turbulent time of the Thirty Years War.

Jan Marek Marci was born in the little town of Lanskroun (Kronland) in eastern Bohemia; he studied at Jesuit academies and became professor of medicine at Prague University. His medical views and methods were quite modern: he recommended a healthy way of life involving plenty of activity in the fresh air and substantial and tasty food. Especially he enjoyed good red wine. He met William Harvey during his visit to Prague and was one of the first to recognize Harvey's discovery of blood circulation.

In 1639 Marci published his book "*De proportione motus*", where, for the first time, he analysed collisions between elastic bodies. Especially he stressed the case when two identical elastic spheres collide, one of them being at rest before the collision. After the collision they exchange their velocities, the first sphere stops and the second takes over all of the motion. Marci even considered the possibility that in this way the cannon balls can be stopped by hitting identical standing balls. This method of stopping cannon balls never came into use, of course, but in fact today we apply a similar method in nuclear reactors, when neutrons are slowed down by collisions with the light nuclei of the moderator.







He studied the collisions between elastic bodies

Another field of Marci's scientific interest was optics. He was the first to discover the phenomenon of light diffraction; he studied coloured light fringes near the edges of sharp knives or small holes made in paper. In his book *"Thaumantias"* he describes the properties of the rainbow and coloured soap bubbles. Several years before Newton he discovered that white light can be decomposed to separate coloured rays by means of a glass prism and that these spectral components do not change any more when passing through another prism.

In 1662 Marci was elected rector of Prague University and he won wide recognition throughout Europe. The Royal Society of London considered offering him membership, but before the news could reach Marci, he was no longer alive. Today Marci is credited as one of the founders of spectroscopy and a small crater on the opposite side of the moon bears his name.

He lived In Prague