

## Romanian Book review (Translation from Romanian to English by Ms Laura Ghia)

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Football/soccer is, first of all, movement and physics is the science of the laws that govern movement. Which means not only that physics applies to soccer, but also that we have to rely also on physics knowledge effectively and on a daily basis, not only on biology, medicine, physiology, chemistry, psychology if we want to continuously enhance this game and increase our chances of relevant and true success as much as possible. Making the coaches and football players look at the game from math and physics perspective and especially convincing them that they need to rely also on these sciences in their daily practice seems rather an unrealistic wish with limited chances of succeeding even in the 21<sup>st</sup> century.

Still Deji BADIRU, industrial engineering professor at Air Force Institute of Technology U.S., former soccer player and coach doesn't seem to agree with such an opinion and he "dares" to dedicate a book only to this topic and not any kind of book, but a substantial and solid book of over 300 pages proves that the things are like that.

The above mentioned background allows the author to talk and reveal to us, the less competent readers, the numerous scientific aspects that soccer contains and/or implies in spite of the fact that it is "only a game". And if you manage to follow such an approach in all its details and reasoning, it will prove to be not only captivating and thrilling but also full of suggestions and solutions for actual practice.

And that happens because the author examines from the perspective of the professional in the most exact sciences, "the science" that lies behind different situations and scenarios in the field, he treats the data that are at the basis of soccer players' decisions in physics terms or he takes us to the world of geometry of the attack or defense phase; geometry which lies at the basis and justifies all the strategic solutions and the directions and routes the players take in the field although it may be perceived as such only by the coaches and players very gifted from tactical perspective.

The book itself is divided into 12 chapters, each of them followed by a rich bibliography. Then, an "Epilogue," an absolutely necessary "Appendix of measurement units and conversion factors," and an Index for terms.

The 1<sup>st</sup> chapter (*The importance of science, technology, engineering and Math in sport*) and the next two are rather short and very technical, but absolutely necessary to read and understand as well as possible to be able to understand the rest of the book.

Next is chapter 4 (*The basics of soccer*) wherein over 50 pages cover aspects apparently very different (from acceleration, dribbling, the physics of human eye in soccer, to communication in the field or the duties of the referees, etc.), but all of them treated strictly from soccer perspective. *The analysis of movements in football* is the 5<sup>th</sup> chapter and the 6<sup>th</sup> – *the Strategy on the field* – it is absolutely too short and sketchy to cover the diversity and depth of the presented aspects.

The 7<sup>th</sup> chapter is rather short (less than 10 pages) and it covers "*the physics of the football player's foot*", and it is followed by two chapters which although by their title are linked to the player Brian Peacock, they treat widely and, of course in the same manner specific to the entire book, the problems of soccer training.

After he dedicates an entire chapter – the 10<sup>th</sup> – to the Math calculations that apply in soccer, in the 11<sup>th</sup> chapter, the author allows himself a short trip to his past as footballer. And finally in the closing chapter he tries to initiate us into "*the scientific management of football*"

According to the explanatory note written by the author himself, the book is addressed first of all to teenage football players, who are given the opportunity to "taste" the beauty of the mathematical and scientific reasoning, which is applied to the game they practise and in which they dream of building a career.

From the content of these pages can benefit not only the teenagers, but also the beginners and especially the adult football players, coaches and sport administrators or even parents.