The Engineering of Sport 7

Vol. 1

Springer

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ISBN-13 : 978-287-99053-3 Springer Paris Berlin Heidelberg New York

Cover design: Jean-François Montmarché

ISEA 2008, just before the summer olympic games!

What a fantastic opportunity to present a compilation of more than 160 articles talking about sports engineering, analysing the coefficients of friction between the balls and the rim and back-board for leather and synthetic basket balls, extracting the aerodynamic force data during real ski jumping flights, optimizing new prosthesis of the lower human leg, analysing the golf ball spin rate after impact, analysing the most common injury in sport climbing using eight fresh dozen cadaver fingers, describing the heat transfer in footwear using finite elements, measuring the aerodynamic performance of cycling time trial helmets, etc, …

What a challenge too to be honnest!

A huge diversity of articles, top level contributions to sports engineering.

Today the world is convinced sport is not only fun but economically a sector, a multi sector, which is not only growing if you only take into acccount the total turn over but is becoming one of the fast growing business.

Sport is not any more reserved for top sporters who want to maintain a certain level in some disciplines, it became a new philosophy of life, a new trend, a way to cope with aging population, with the reality of the society today.

Our every day life is concerned with sport or sport derived products or services, it is in our shoes, our suits, our car, our bike, at home, when we eat, when we drink, when we sleep, relax, when we look at TV for international events, when we listen, watch the news, for fun.The sports engineering community as it was noted two years ago keeps growing.

We have to admit it was a very difficult task to review all the contributions and to come down to 150 articles; It was very difficult too to allocate reviewers to contributions because a lot of articles were proposing not only scientific contributions but also engineering solutions and methodologies.

Some groups of articles could have been selected as a basis for a workshop in itself!

In front of such a diversity of contributions we have decided not to group the articles by families, by themas, by keywords, by branches, by sports, by subjects, by numbers of contributions but we decided to regroup it in two different volumes without any introduction which we thought would not bring anything to the readers, just proposing the articles in a natural order creating of course some surprises, but it was a choice!

Of course there is a table listing the articles with their authors and co-authors and the programme will indicate evey time the article number.

Complex to read? Difficult to apprehend? We thought it would give the best way to understand the complexity of sports engineering today; An article about football in a ball section of proceedings, in the shoes section, in the field surface section, in the injury section, in the training part, in the video group, in the sliding effect paragraph, in the referee point of view chapter, in the leather section may be, why not the aerodynamics or the finite elements analysis, may be in the professional sports section or the leisure, the TV business, the star system, …

So many possibilities, we just did it in the way we were convinced would be the most open!

What we wanted to do is to provide the readers with the best sports engineering contributions in 2008, before the biggest sports event on earth, the olympic games, in front of 5 billions telespectators who will enjoy the show and for many of them start again sporting, or just start a new sport, realising what they can do, discover a new passion, using in any case the brain storming of the world of engineering contributors to improve our every day life.
This is the magic of sport!

Margaret ESTIVALET & Pierre BRISSON

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