

EDITORIAL

GYMNASTICS AT OLYMPIC GAMES

In 2018, The Science of Gymnastics Journal has reached the first decade of existence! We must celebrate, as it is among the few scientific journals specific to one sport!

We applaud its 10th anniversary with this special issue for October: Gymnastics at Olympic Games.

Rio 2016 has gone, with many memories to recall, the exuberance performance of Simone Biles and Kohei Uchimura in women's and men's Artistic Gymnastics; Margarita Mamun in Rhythmic Gymnastics; and Uladzislau Hancharou and Rosanna MacLennan in women's and men's Trampoline. They were crowned absolute queens and kings, although there are many others who exhibited their best too.

Gymnastics has been growing and evolving at each Olympic Cycle, new skills and combinations abound, and gymnasts seem to have no limits!

However, this evolutionary trend in Gymnastics is partly owed to the science, and the gymnastics' community knows well gymnasts could not reach that far without the support of science.

This special edition adds 12 articles to the science of gymnastics from researchers of Brazil, Bosnia and Herzegovina, Croatia, Germany, Portugal, Slovenia and the United States of America, who cover a variety of topics.

Maja Pajek discusses the influence of rules' changes on the trend of higher difficulties and gymnasts' specialization in Artistic Gymnastics, while investigating the performance of all-around medalists at individual apparatus finals.

Ivan Čuk and Karmen Šibanc present the history of the development of Olympic Games all-around medalists and their success in reaching the podium on individual apparatus in Men's Artistic Gymnastics.

Ivana Montandon and Myrian Nunomura explored the experiences of older gymnasts (over 20 years of age) and the factors that contributed to the prolongation of their sports career in the high level of Women's Artistic Gymnastics in Portugal.

William Sands, Steven Murray, Jeni McNeal, Cindy Slater, and Michael Stone conducted an extended and updated analysis of the sizes trends of U.S. female Olympic artistic gymnasts including the 2012 and 2016 Olympic Games.

Flavio Bessi and Jan Pfeifer attempt to set a viable classification system to categorize the rotation habits of high-level artistic gymnasts in the Women's Individual All Around finalists at the Olympic Games Rio 2016.

Catarina Leandro analyzed the evolution of the apparatus difficulty in the Rhythmic Gymnastics in two Olympic cycles, as an attempt to identify eventual factors that could contribute to the improvement of performance in competition.

Eliana Toledo, Mateus Oliveira, Maria Letícia Scarabelim and Bianca Assumpção analyzed the impact of the Rhythmic Gymnastics Code of Points (2013-2016) by allowing vocal music in routines, at the Rio 2016 Olympic Games.

Laurita Schiavon and Bruna Locci analyzed the perspectives of Brazilian gymnasts on the experience of participating in the Olympic Games in the Women's Artistic Gymnastics competition (1980-2004), using oral history in a qualitative research approach.

Caroline Molinari, Vitor Costa, Kamau Monteiro and Myrian Nunomura analyzed the Brazilian Women's Artistic Gymnastics team participation over the last four cycles (2004-2016) in order to identify and discuss the factors associated to the results and contributions to the development of this sport in the country.

Marco Bortoleto, Paulo Carrara and Murilo Roveri analyzed the participation of the Brazilian trampoline gymnastics in the main international events as the World Championships and the Olympic Games.

William Sands and Olyvia Donti characterized and analyzed the durations of careers of U.S. elite female gymnasts who had qualified for Olympic Games and World Championships teams and compare these with the team rank from 1936 to 2016.

Sunčica Delaš Kalinski, Petra Mandić Jelaska and Almir Atiković examined the relative age effect (RAE) among Women's and Men's Artistic Gymnastics in the elite international gymnasts who competed at Olympic Games.

After hosting the Olympic Games in our country (Brazil), we are very pleased as guest editors for this special issue. It was a unique opportunity to work with researchers from different countries and fields of study, and to realize how science can support the many gaps still to fulfil in the world of gymnastics. Articles also incited our reflection and foster much thought.

We hope you will enjoy every article presented as we did.

Special Guest Editors:

Laurita Marconi Schiavon

Myrian Nunomura