



# GAME, DRAMA, RITUAL IN MARTIAL ARTS AND COMBAT SPORTS

PROCEEDINGS OF THE 1<sup>ST</sup> IMACSSS  
INTERNATIONAL CONFERENCE

Genoa, Italy  
8<sup>th</sup> - 10<sup>th</sup> June, 2012

Scientific Editors Sergio Raimondo, Carlos Gutiérrez-García, Mikel Pérez-Gutiérrez



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## **Game, Drama, Ritual in Martial Arts and Combat Sports**

### **Proceedings of the 1<sup>st</sup> IMACSSS International Conference**

Genoa - Italy

8th – 10th June, 2012

#### **General presentation**

The International Martial Arts and Combat Sports Scientific Society (IMACSSS), the Unione Italiana Sportper tutti Area Discipline Orientali (UISP ADO), and the Laboratorio di Ricerca Sociale - Dipartimento di Scienze Umane, Sociali e della Salute Università di Cassino, Italy, propose the **1<sup>st</sup> IMACSSS International Scientific Conference** with a focus on *Game, Drama, Ritual in Martial Arts and Combat Sports*. The Conference will take place from 8 - 10 June 2012 in Genova, Italy.

The organizers firmly believe that this initiative will provide a valuable opportunity to promote, enlarge, and strengthen the scientific community developed around the investigation of martial arts and combat sports (MA&CS). The central focus of the Conference will be the scientific interpretation of the fundamental connections among socio-cultural categories of game, drama and ritual in the context of MA&CS. These modes of interaction can be found in all kinds of sports, but, in the specific context of MA&CS, they are even richer in socio-cultural meanings than in the context of other physical activities. In fact, the analysis of these behavioral genres also applies to research in very different fields ranging from religious studies to medicine, from expressive culture to applied studies.

The Conference also will be the inaugural event of an interactive show, to be held in the same venue throughout June 2012. The show will be dedicated to the famous French painter and judoka Yves Klein, on the occasion of the fiftieth anniversary of his death.

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<sup>1</sup>Faculty of Sport Sciences, Department of Physical Education and Sports, University of Granada, Spain

<sup>2</sup>Institute of Nutrition and Food Technology, University of Granada, Spain

<sup>3</sup>Faculty of Physical Education and Sport Sciences, University of León, Spain

<sup>4</sup>Faculty of Physical Education and Sport Sciences, Department of Physical Education and Sports, University of Valencia, Spain

<sup>5</sup>School of Physical Education, University of São Paulo, Brazil

Phone: 0034958244364; E-mail: rescobar@ugr.es

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## **SPECIAL JUDO FITNESS TEST PERFORMANCE OF JUNIOR AND SENIOR JUDO ATHLETES FROM THE SPANISH JUDO TEAM**

**Keywords:** specific test, anaerobic evaluation, aerobic evaluation, heart rate

### **Problem identification**

Judo performance is dependent on many factors, including technical, tactical, physical and psychological aspects. Among the physical aspects, both anaerobic and aerobic power and capacity have been considered important for judo performance (Gariod et al. 1995; Franchini, Del Vecchio, et al. 2011). These variables have been evaluated through a specific test created by Sterkowicz (1995) – the Special Judo Fitness Test (SJFT), which has been reported to be reliable, valid and widely used (Franchini, Sterkowicz, et al. 2011; Franchini, Del Vecchio, and Sterkowicz 2009). Thus, the identification of anaerobic and aerobic profile of high level judo athletes from different ages and sexes can contribute to a better understanding the physical characterization of different judo groups.

### **Methodology**

Fifty high-level judo athletes between 18 and 30 years old (12 female juniors, 15 female seniors, 13 male juniors and 10 male seniors) from the Spanish Judo Team took part in this study voluntarily after signing an informed consent form. They were submitted to the SJFT during 2010 season competitive period. Groups and sexes were compared through a two-way analysis of variance. Tukey test was used as post-hoc. Level of significance was set at 5%.

### **Results and discussion**

Table 1 presents the performance of junior and senior judo athletes from male and female Spanish Judo Team.

No effect of sex or age was found for any variable ( $p > 0.05$ ). An effect of interaction between age and sex was found for heart rate 1-min after the SJFT ( $p = 0.05$ ), but the post hoc test did not confirm this difference. In general, these athletes are classified as “average” and “good” concerning for total number of throws, heart rate after, heart rate 1-min after and index (Franchini et al., 2009). The absence of difference between age groups confirms the finding from Terbizan and Seljevold (1996) concerning the development of anaerobic capacity, which achieves its peak when wrestlers are 17 years-old. Although it is commonly reported a difference in anaerobic capacity (inferred from the Wingate test) between men and women judo athletes (i.e., women present ~70% of men’s values) (Franchini et al., 2011) the same cannot be inferred from our results.



**Table 1. Number of throws during sets A, B and C, total number of throws, heart rate after and 1-min after the Special Judo Fitness Test in junior and senior judo athletes from male and female Spanish Judo Team (values are mean  $\pm$  standard deviation).**

	Junior Female (n = 12)	Senior Female (n = 15)	Junior Male (n = 13)	Senior Male (n = 10)
A (number of throws)	5.8 $\pm$ 0.4	5.8 $\pm$ 0.7	5.9 $\pm$ 0.4	5.6 $\pm$ 0.5
B (number of throws)	10.7 $\pm$ 0.8	10.4 $\pm$ 0.8	10.8 $\pm$ 0.9	10.4 $\pm$ 0.8
C (number of throws)	9.8 $\pm$ 0.7	9.5 $\pm$ 0.9	10.0 $\pm$ 1.2	9.9 $\pm$ 0.7
Total number of throws	26 $\pm$ 2	26 $\pm$ 2	27 $\pm$ 2	26 $\pm$ 2
Heart rate after (bpm)	187 $\pm$ 5	180 $\pm$ 9	183 $\pm$ 5	183 $\pm$ 7
Heart rate 1-min after (bpm) <sup>a</sup>	162 $\pm$ 15	155 $\pm$ 14	153 $\pm$ 9	160 $\pm$ 15
Index	13.32 $\pm$ 1.44	13.09 $\pm$ 1.54	12.66 $\pm$ 0.88	13.34 $\pm$ 1.29

a = interaction effect of age and sex factors (p = 0.05)

### Conclusion

High-level junior and senior male and female judo athletes do not differ in their performance during the SJFT. Further studies should focus on larger samples, including lower level athletes as well as generic tests to investigate if the absence of difference occurs only in specific actions.

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