

## CURRENT FORECASTING TRENDS OF SPORTING ACHIEVEMENTS

D.Y.,Salakhov, I. E. Kononov, V.I. Volchkova

Volga Region Academy of Physical Culture, Sports and Tourism, Kazan, Russia

To contact the authors E-mail: djoker990@gmail.com

### Abstract:

The article deals with modern trends in the development of sports in different countries. The text also provides examples of how the sport is developing today. Based on the analysis you can see that the development of sport in general thanks to modern technology gives the highest result. In the text, you will find some of the principles, which adhere to the analysis of the results of the calculation of the athletes and sports in general. The methods to analyze and predict the results of the athletes are reviewed. Pros and cons of modern programs and methods of forecasting.

**Key words:** forecasting, sport achievements, the Olympic Games, World Championships, methods, software, training, sports equipment, selection experiment.

### СОВРЕМЕННЫЕ ТЕНДЕНЦИИ ПРОГНОЗИРОВАНИЯ СПОРТИВНЫХ ДОСТИЖЕНИЙ

Д.Я. Салахов, И.Е. Коновалов, В.И. Волчкова

ФГБОУ ВО «Поволжская государственная академия физической культуры, спорта и туризма», Казань, Россия

### Аннотация:

В статье рассматриваются современные тенденции развития спорта в разных странах. В тексте также приводятся примеры того, как спорт развивается сегодня. На основе анализа можно увидеть, что развитие спорта в целом благодаря современным технологиям дает высокий результат. В тексте предлагаются некоторые принципы, которых придерживаются при анализе результатов расчета спортсменов и спорта в целом.

**Ключевые слова:** прогнозирование, спортивные достижения, Олимпийские игры, чемпионаты мира, методы, программное обеспечение, обучение, спортивный инвентарь, выбор, эксперимент.

### INTRODUCTION

Achievements of any results in sports and attempts to predict a particular outcome, which will be in the near or distant future, in a particular, sport, are relevant. Since a lot depends on the strategy and tactics of selection and training of future applicants of Olympic medals [1].

It is possible to forecast achievements for today. This area is one of the very interesting and promising directions in sport science, which especially in the last decade develop very intensively in many countries. Therefore, in our country in 1971 at the All-Union Research Institute of Physical Culture there was organized a sector of forecasting of sporting achievements, which developed the correlation of forces of various countries in certain sports disciplines at the time of the Olympic Games and world championships, forecast performance the main contenders for the team victory. These laboratories and ex-

perts are in the UK, Bulgaria, Poland, the USA, the Czech Republic, Sweden, Germany and other countries [2].

Sports achievements can be predicted for almost all sports. In a sport with an objectively measurable results obtained in a relatively constant external conditions, athletics, swimming, weightlifting and others. The procedure is easier than in other sports, say, rowing, cross-country skiing special slalom and giant slalom, where competitions are held and changing a hard comparable conditions, prediction of a certain complexity, despite the fact that these results are measured in metric units [3].

Even in cross-country skiing and rowing, where a competition result is strongly influenced by environmental factors, for many years forecasts of the results of winners of the world championships have been developed. Prediction of itself is not a self-destination, but an important means of

optimal planning and control of the preparation of athletes for major competitions.

In gymnastics, figure skating, diving forecasting results is more difficult due to the complexity of the program and the evaluation of the accuracy of its performance. However, in these sports prediction is possible, although the forecast is very rough. For example, in gymnastics by the index of complexity of the content of any program in certain types of exercise programs one can assess the level of the World Cup finalists and the Olympic Games and, most importantly, to predict the trends of development. For example, in gymnastics by the index of complexity of the content of any program in certain types of exercise programs we can assess the level of the World Cup finalists and the Olympic Games and, most importantly, to predict the trends of development [4].

Less developed is a method of forecasting in the martial arts and sports games. The process of developing forecasts in sport involves a set of specific operations. It can be seen that the sequence of these operations focused on the choice of methods and techniques of forecasting, allowing to develop a prediction of a model of the object. In turn, the class of formalized methods of extrapolation is divided into groups, associative techniques and methods of advance information. Today, there are about 150 forecasting methods. However, scientists argue that the number of basic methods of prognostication, which in certain cases is repeated in other methods, is less. In the literature, there is a large number of classification schemes of forecasting methods. S.A. Sargsyan subdivides all the methods of forecasting on the degree of formalization into intuitive and expert assessments and formal or factual.

Depending on the general principles of action, intuitive prediction methods are divided into two groups: individual expert assessments and peer-reviewed. Of course, not all existed forecasting methods are acceptable in sports and have a practical value for the prediction of higher sporting achievements [5].

At present, in predicting sports results and the balance of forces at the Olympic Games, World Championships, European safety performance of athletes in competitions responsible is based

on specific matches; meetings obtained by the method of expert evaluations are widely used. With their help, we have developed a number of forecasts of world records in some sports. The experts involve experienced theoreticians and practitioners in the field of knowledge.

There are two ways of working with the experts: individual and group. If an individual form, construction of trainer or scientists' forecast takes place independently of other specialists. In this case, to obtain the target information the following methods are used: interviews, analytical memos, script writing. For a group (collective) form of work the forecast is developed by experts through the exchange of views (oral or in writing, in person or in absentia) of the projected object. The structure of the method of collective expert evaluations include surveys, methods of "fees", "brainstorming" (collective generation of ideas), and «Delphi method» [6].

Methods of expert assessments characterize certain advantages and disadvantages. Perhaps V.I. Balandin, Y.M. Bludova and V.A. Plahtienko consider the most complete positive and negative aspects of each of these methods, as well as the organization and methods of examination to improve the reliability of expert assessments in relation to the problem under discussion in the forecasting in the sport. Of course, experts can give true or false assessment. A critical analysis of forecasts of records made with the involvement of experts, by the example of some sports will be made below [7].

Among the formal methods, as the analysis of the scientific literature shows, a significant spread in predicting sports results and records measured in sports obtained through extrapolation. As it is known, the extrapolation has an extension in the future trend of the past. The extrapolation is based on the following assumptions:

The development of the phenomenon can be reasonably characterized by a smooth trajectory – trend [8].

General conditions determining the trend of development in the past will not undergo significant changes in the future.

The basis of the forecasting methods is the study of dynamic time series ordered in time values of athletic performances.

Records are always ahead of forecasts. In this case more modern means and methods of training, improvement of the system of selection of sporting talent, increase in the number of highly skilled sportsmen in a favorite sport, optimization of power athletes, improvement of living conditions of people and material and technical base of sport, increase of the prestige of certain sports disciplines, the level of achievements and prospects the development of sports science always appear.

In fact, a significant increase in world records occurred where there was modern sports equipment and facilities, progressive training methods, effective technique and tactics, for example, in the pole vault, high jump, cycling, long-distance running, swimming. In this connection, it is appropriate to note that in the Sydney Olympics in 2000, the swimmers set 15 world records, and all, without exception, were dressed in black suits specially designed by the Adidas, which are called the Fast Skin.

It is really better than the swimmer's own skin, in the sense that it reduces friction. Each part of the costume is different from the direction of the neighboring stiffness and villous tissue. Together they create tiny whirl covering skin of the vortex shell, which makes the body more slippery. In the course of experiments, it was found that the friction of water is reduced by an average of 3 %, and the speed of the swimmer may increase by 7.5%. The Australian athlete Iaon Thorpe won three gold medals, speaking in a jumpsuit, specially designed by the company Adidas a year before the Olympic Games in Sydney [9].

A great disadvantage of many predictions is that they cannot provide all that. For example, they are not able to take into account abrupt changes in the results, which are likely to have occurred in the

near or distant future. Who can confidently say today: what will appear in 2010 or 2020 years – revolutionary changes in sports equipment, technique training or in individual sports? What high-quality materials will be used in the construction of sports facilities, in the manufacture of sports equipment and outfitting of the athletes and how will they affect the growth of the results?

In addition, the assumptions about the development of the world's best result can not only come from existing ratings or best results of the season. As the world-class results are reflected in a certain degree as an outstanding personality in the sport which expert will dare to call an athlete, able to show the expected result? Indeed, many individual characteristics of the athletes of the future are unknown today for coaches and scientists [10].

So, a few years ago, a Japanese professor at the University of Morio Ikehara Osaka succeeded after lengthy experiments obtained by synthesis genes affecting the growth of a man. The structure of this complex gene has 191 amino acids.

It is possible that in the near future it will be possible to adjust the length of the body of people, depending on the wishes of each person: to increase in case of low growth or slow down the growth rate of the length of the body during intensity of its development. All this makes it possible (in certain, of course, within the limits dictated by the laws of nature) to determine consciously, to people's mind of the future, the most harmonious physical human appearance.

One should not forget about such a painful phenomenon that swept the recent sports as anabolic. It is also greatly influenced by the acceleration of growth of the results in the individual disciplines of athletics.

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**СВЕДЕНИЯ ОБ АВТОРАХ**

Салахов Джалил Яудатович (Salakhov Djalil Yaudatovich) – аспирант кафедры теории и методики физической культуры и спорта Поволжской государственной академии физической культуры, спорта и туризма, Россия, Республика Татарстан, г. Казань.

Коновалов Игорь Евгеньевич (Konovalov Igor Evgenyevich) доктор педагогических наук, доцент Поволжской государственной академии физической культуры, спорта и туризма, Россия, Республика Татарстан, г. Казань

Волчкова Венера Ильдусовна (Volchkova Venera Ildusovna) – кандидат педагогических наук, доцент Поволжской государственной академии физической культуры, спорта и туризма, Россия, Республика Татарстан, г. Казань