

Motion Analysis of Human Biorhythm Based on Cosine Model¹

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Abstract—Since ancient times, human beings began to understand the periodicity of their own activities. In modern times, people gradually found that the movement of living matter followed a specific space-time law and put forward the concept of biological rhythm. The biological rhythm of human body is a cycle theory that takes the body of each person as a research object and reveals the laws of physical strength, emotion and intelligence of human body. Based on this concept, this paper carries out a detailed analysis and discussion on the athlete biological rhythm, proposes a new human biological rhythm calculation method called cosine model method. The results are obtained by observing athletes for a period of time. According to the inherent tri-rhythm of human body using the description, statistics and analysis, a mathematical model is established to objectively and quantitatively describe the characteristics of biological data. That allows us to predict biorhythms.

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1. INTRODUCTION

In the long course of social history, human beings have found that there are many activity rhythms with periodic characteristics in the human body and the world around. As one of the basic characteristics of life activities, rhythmicity is the result of adaptation of organisms to natural cycle changes in the long evolutionary process of billions of years. The 2017 Nobel Prize in physiology or medicine was awarded to three American scientists (M. W. Young, J. C. Hall, and M. Rosbash) for their contribution to the discovery of genes and regulatory mechanisms of the biological clock, which has brought the study of biological rhythms back into the spotlight.

With the deepening of the research on human biological rhythm, some of theories have gradually penetrated into sports training [1]. Practice has proved that the scientific use of human biological rhythm to guide exercise training is feasible and important.

In the inner part of organism there is a rhythm phenomenon called “biological clock” or “biorhythm.” This internal phenomenon reflected in the human body is traditionally called luck, and is known as human biorhythms or luck rhythms. Strictly speaking, there is a difference between the biological clock and the way the body’s biorhythms are expressed. The former is an exotic and the latter is an orthodox Chinese element. The practice of “human biothythology” has proved that only when it comes from the orthodox Chinese elements can it truly reflect the basic law of human internal rhythm, and it has the practical value.

Human body biorhythms are physical, emotional and intellectual rhythms because they have accurate time; therefore, they are also known as human body clock. In our daily life, some people will feel their physical strength, emotion or intelligence is sometimes very good, sometimes very bad, from the day of their birth, until the end of their life. Their physical strength, emotion and intelligence are cyclical changes going from strong to weak, and from weak to strong [2]. People call this phenomenon biorhythm, or biological rhythm, life rhythm and so on.

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CONFLICT OF INTEREST

The author declares that they have no conflict of interest.

ADDITIONAL INFORMATION

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