

# Statistically 'Proven'! Germany Will Be Next Soccer World Champion

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$$P(n) = \left( \bar{P} + \frac{1}{2} \right) + \left( \bar{P} - \frac{1}{2} \right) \cdot \cos\left( \frac{2\pi}{N} n \right)$$

World Champion Formula

For some people soccer is a game of pure chance. Metin Tolan confronts the emotions in the stadium with statistical calculations. The professor for experimental physics at the Universität Dortmund says, “In soccer luck and bad luck can be measured”. And he already knows that we will become Soccer World Champions in the summer. Here the two principles are: stay calm and ask the right questions.

After the World Cup successes of the German team in 1954, 1974 and 1990, today the physicist focuses on probability simulations which he explains with a wink. Prof. Tolan determines the playing ability of the single teams by the average goal rate at the previous World Cup tournaments. To begin with, he calculates the probability of Germany becoming World Champion to be 10.69 percent. But that is not enough.

Tolan calls attention to the fact that, “The host country certainly has a home advantage due to the spectators”. Therefore the goal rate can be raised by one point – and the probability for Germany to get the very sought-after title amounts to 33.18 percent. “And as it is a top class

audience the goal rate is increased by two points: that results in a probability of 56.39 percent”, Tolan fiddles about.

For all those he can not convince with this calculation, the 40-year-old has developed the ultimate World Cup formula. With this formula Germany's rank can be predicted. Tolan determines Germany's average rank in all previous World Cups to be 3.7. He relates that to a period of “strong” German World Cup teams. According to that, Germany has the strength to win in every fourth or fifth World Cup. In the fifth Soccer World Cup in world history, in 1954, the team got the first title and five tournaments later the second. In case of the victory in 1990, four World Cups had passed and to periodically continue the series 5 - 5 - 4, a 4 has to follow now. With a smile in his face the scientist therefore proofs that the trophy will remain in Germany this year.

Source: Universitaet Dortmund

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