

**KINEMATICAL RESEARCH ON HURDLE CLEARANCE TECHNIQUES OF ELITE
CHINESE ATHLETE IN 100M HURDLES**

Zhong Xu, Jing Wang*, Jingshan Li*, Xiaofeng Li*, and Jihe Zhou*

**Chongqing Normal university, Chongqing, China
*Chengdu Sport University, Chengdu, Sichuan, China**

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INTRODUCTION: Although Jing Liu was the champion of women's 100m Hurdle in 2007 Asian Games, the performance did not get the level of the world elite athletes. This investigation was conducted to find the technique defects and thus to serve athletic training through kinematical analysis to hurdle clearance techniques of Jing Liu.

METHOD: The motion was taped via two high-speed cameras with 3D fixed-points in this research. One was applied for frontal and lateral photography of the first hurdle, the other was applied for frontal and oblique photography of the first hurdle. The included angle of these two cameras was 100° with frequency of 100 frame per second. The motion was digitised by 3-D-SignalTECv1.0c analysis system to analyze the hurdle clearance techniques with filtering frequency 8 Hz.

DISCUSSION AND CONCLUSION: 1, The characteristics of Jing Liu's hurdle clearance technique were small takeoff angle(19.3°), low mass height(2.13m)and short step length(0.42m) while passing hurdles and without active pressing of swing leg after hurdle clearance. 2, The thigh and the crus folded insufficiently(the smallest knee angle was 64.9°)while hurdle clearance. The height of centre of mass when passing hurdles was 0.35m.

REFERENCES:

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