

**Topic of the Speech:**

Shielding Effectiveness Analysis of Electromagnetic Shielding Clothing for Pregnant Women based on Finite Element Method

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Dr. Long Wu obtained his Ph.D. degree from the Hong Kong Polytechnic University in 2013. He is currently serving as an associate professor in the School of Apparel and Art Design of Xi'an Polytechnic University. He teaches subjects about Apparel Production Technique, Apparel Machinery, Anthropometric Technology and Application, etc.

As the main participant of the National Natural Science Foundation of China in 2013 (61303120), Dr. Wu carried out research work in Shaanxi Union Research Center of University and Enterprise for Apparel Intelligent Design and Manufacturing. Over the last several years, he received an outstanding student papers competition award in TBIS 2011 and an outstanding research papers competition award in TBIS 2014.

Also, Dr. Wu was a member of the expert committees of the Garment Industry Association in Shaanxi Province between 2016 and 2019. Funded by China Scholarship Council in 2019, Dr. WU became a visiting scholar in the School of Fashion and Textiles at RMIT University in Melbourne, Australia from October 2019 to May 2020. In 2021, he was appointed the vice director of the Garment Customization Committee of China National Garment Association (CNGA).



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ABSTRACT (NO MORE THAN 500 WORDS:)

Related studies have shown that pregnant women have a certain sensitivity to electromagnetic radiation. At present, there is a lack of a digital evaluation system for the simulation model of pregnant women affected by electromagnetic radiation and the shielding effectiveness of pregnant women's anti-electromagnetic radiation clothing. In this study, the simulation models of pregnant women and fetuses were proposed, and virtual fitting software was utilized to model the clothing, combining three-dimensional electromagnetic simulation software. The results show that the effects of electromagnetic radiation on pregnant women are concentrated in the neck, chest, abdomen, and legs. A digital evaluation method is proposed in this study, providing a novel idea for detecting the shielding effectiveness of electromagnetic radiation in pregnant women.