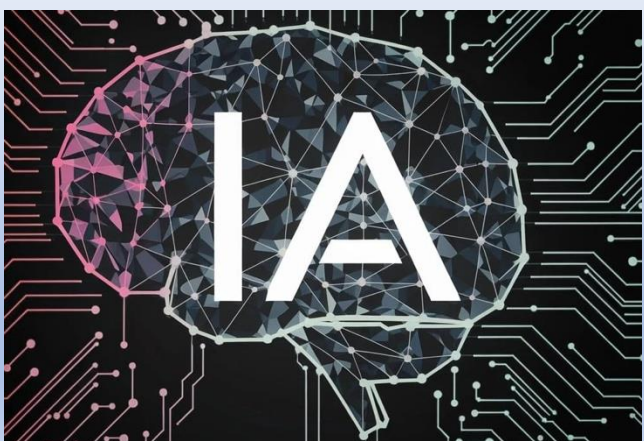




AI in action: faster and reliable fetal biometry at 40 weeks?



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OBJECTIVES

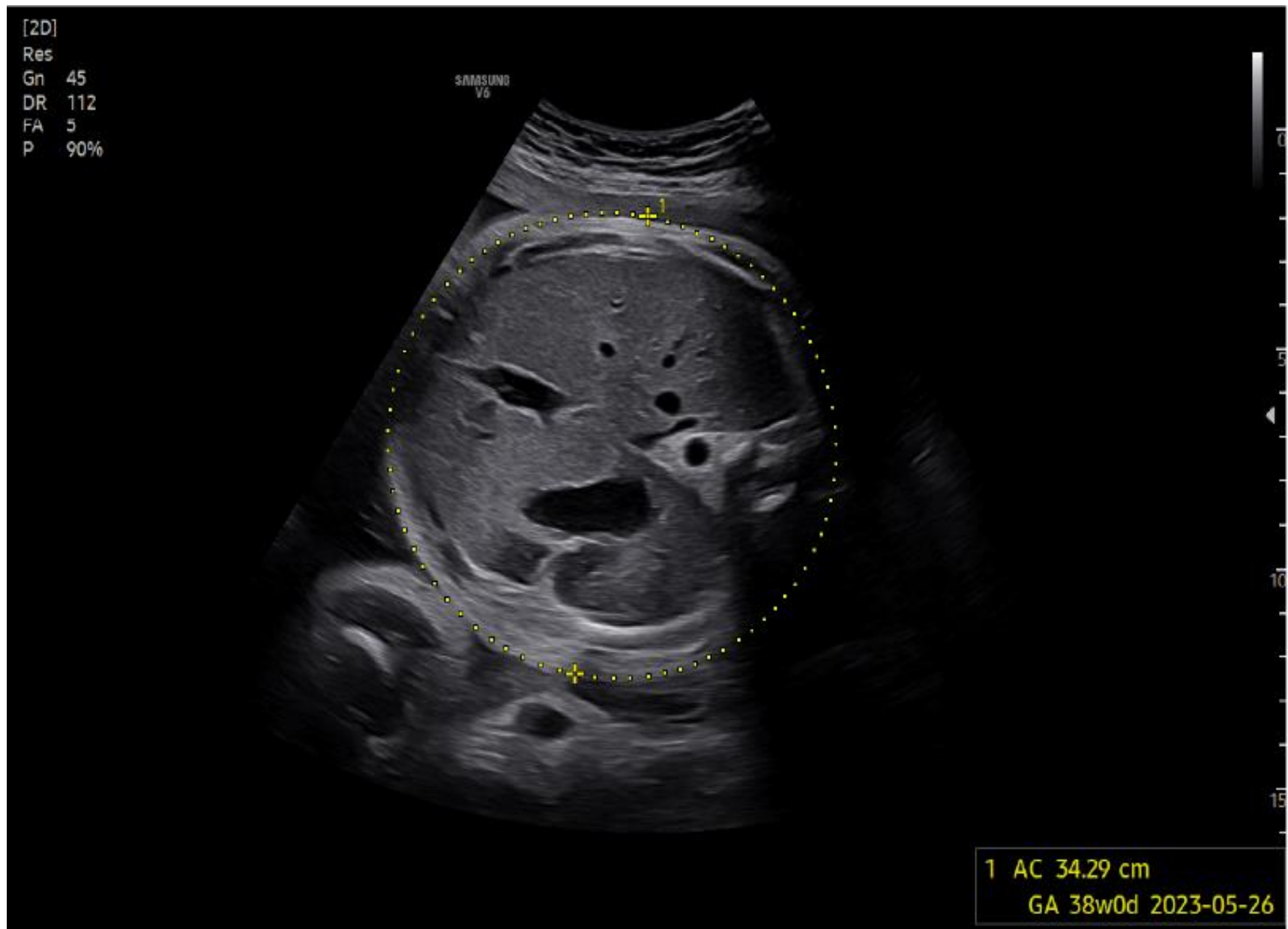
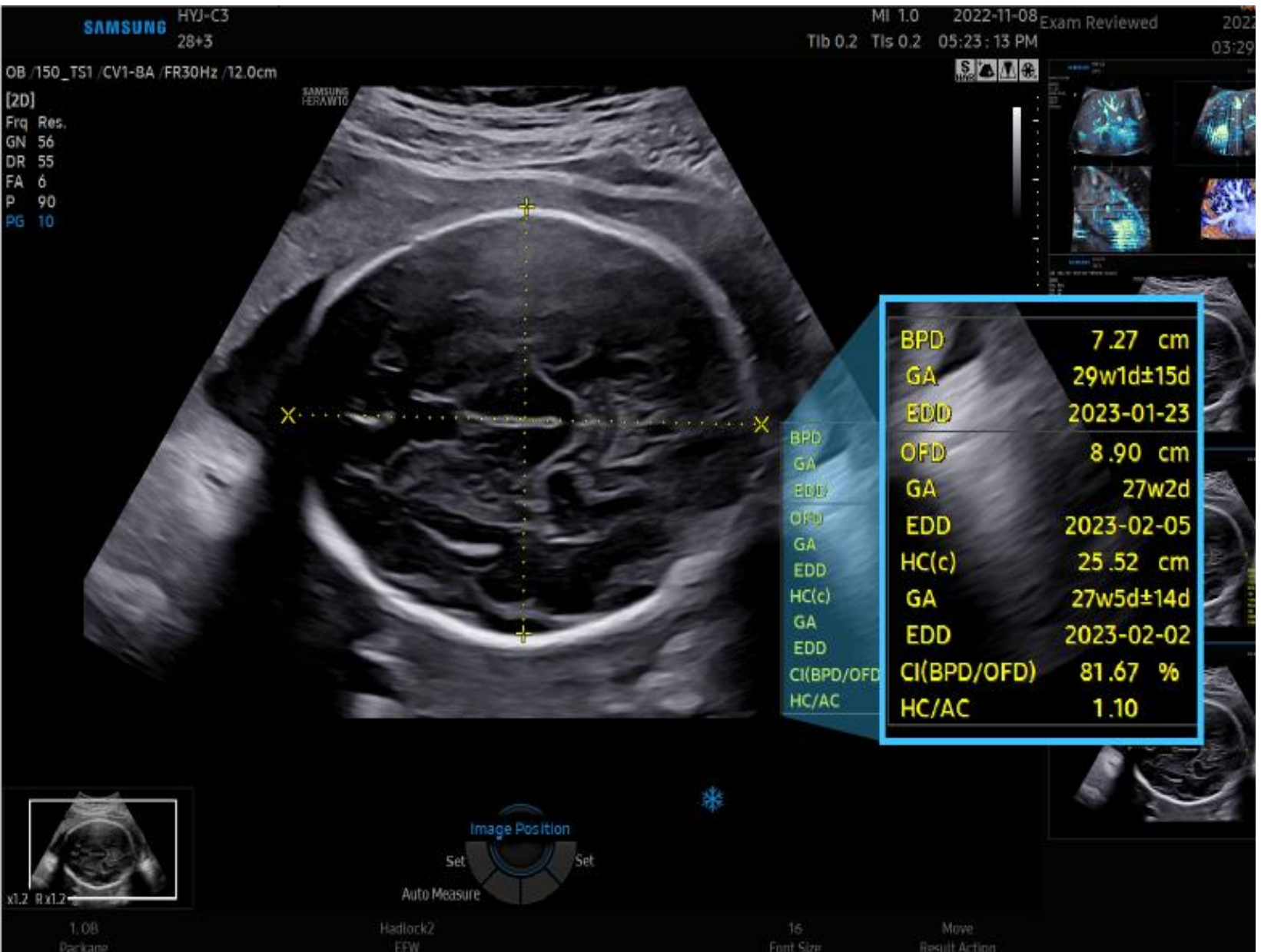
To evaluate the agreement between artificial intelligence (AI)-assisted and manual methods for fetal biometry and estimated fetal weight (EFW) and birth weight (BW) in late-term pregnancies

METHODS

Women attending a late-term ultrasound scan (40–41 weeks) at participating centers underwent both AI-assisted and manual fetal measurements. Biometric parameters included biparietal diameter (BPD), head circumference (HC), abdominal circumference (AC), and femur length (FL). EFW was calculated using the Hadlock-3 formula, and EFW percentiles were derived from FMF charts. The starting method was alternated between AI and manual to minimize bias

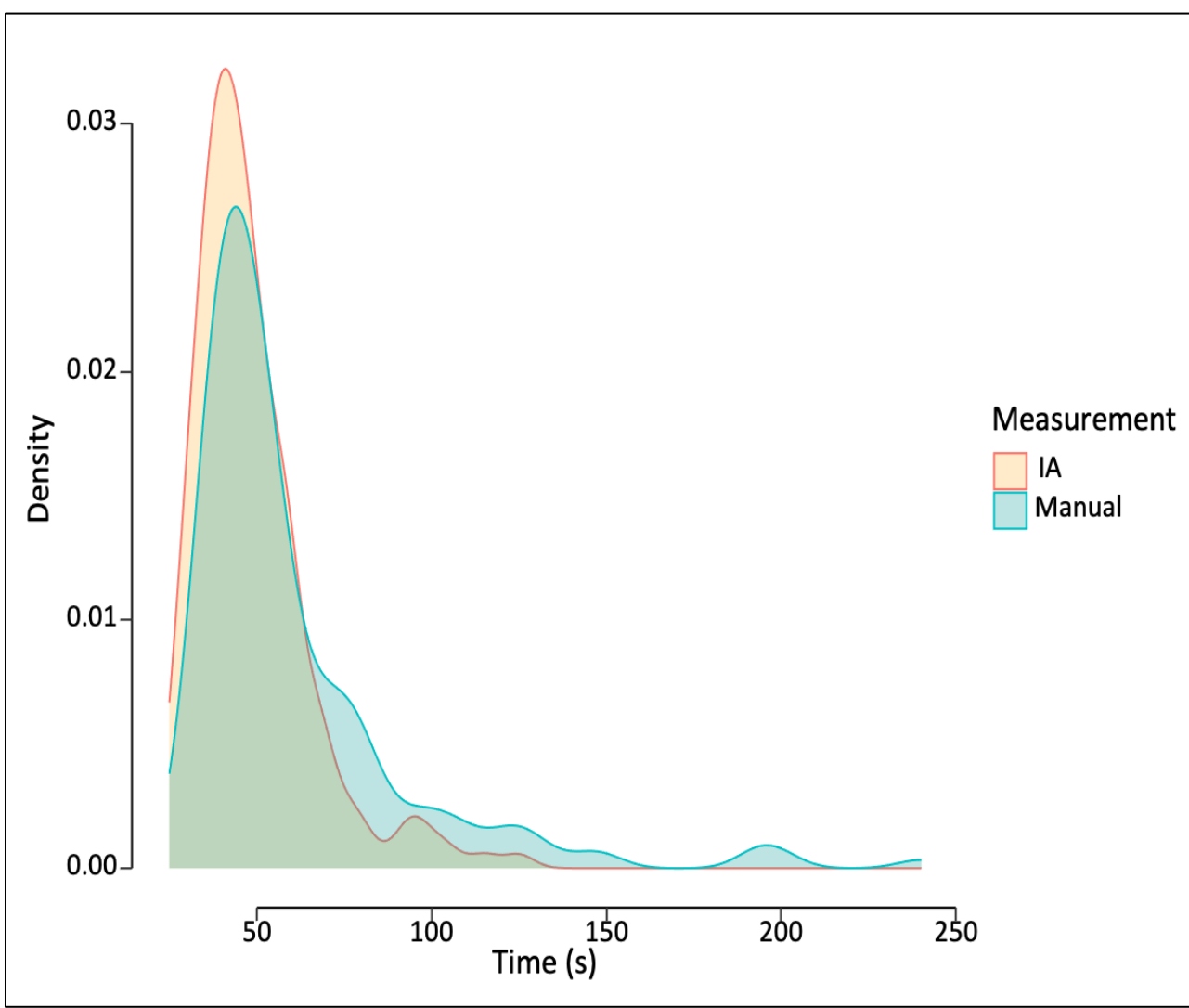
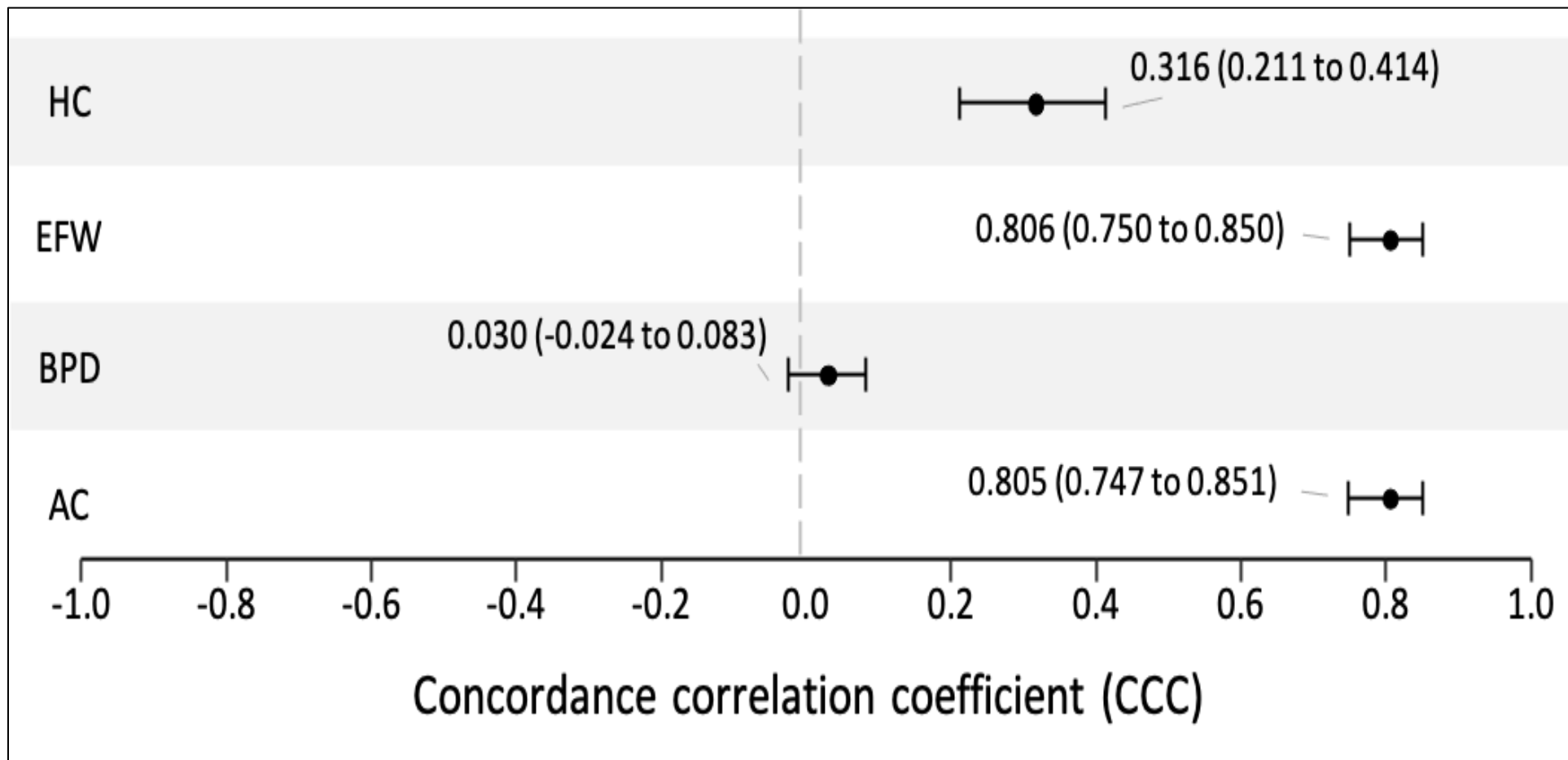
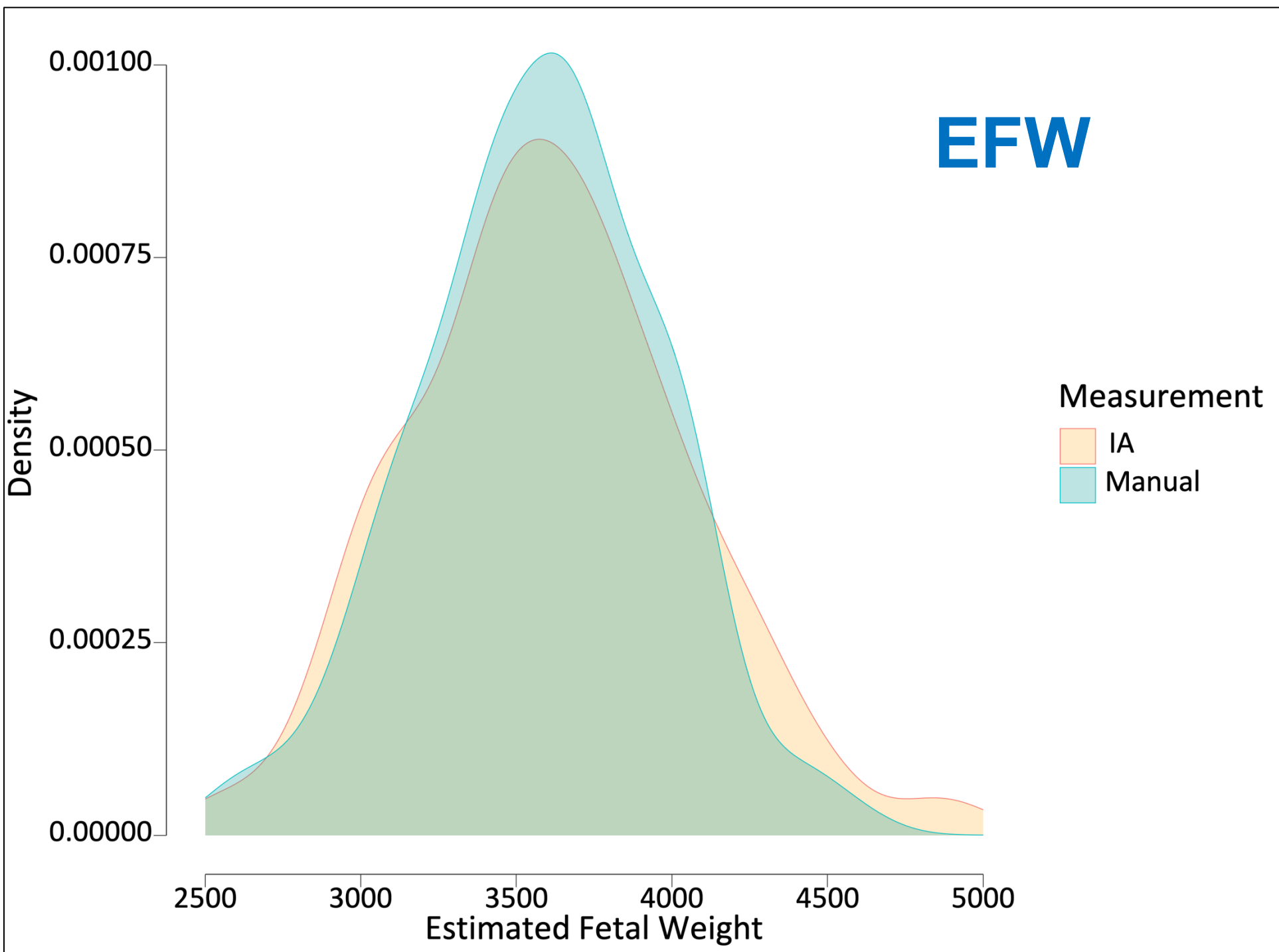
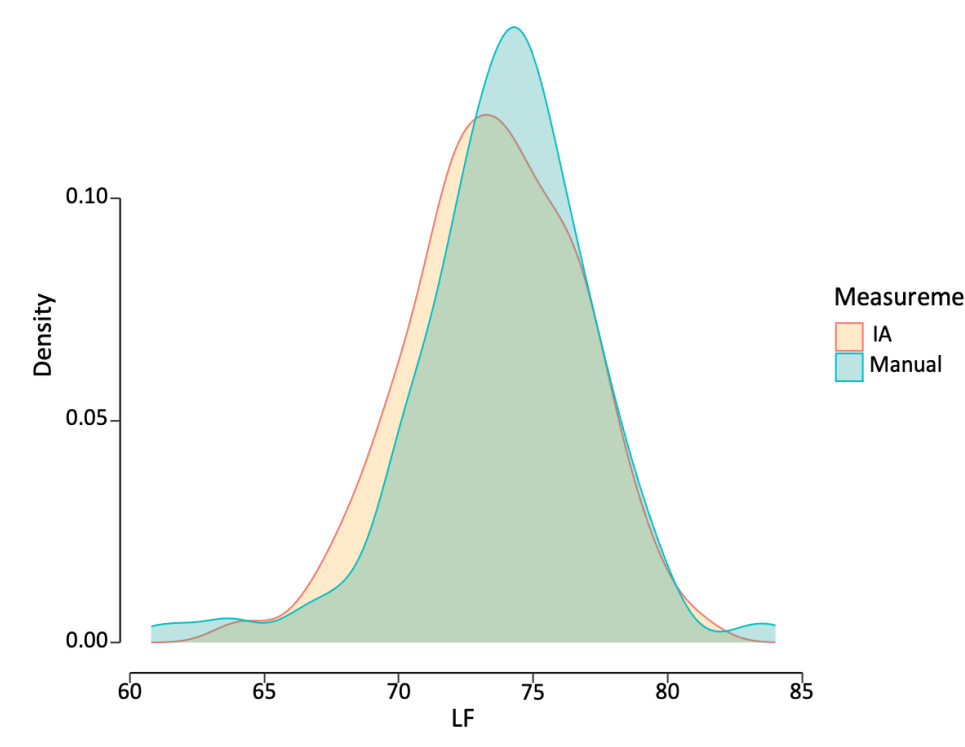
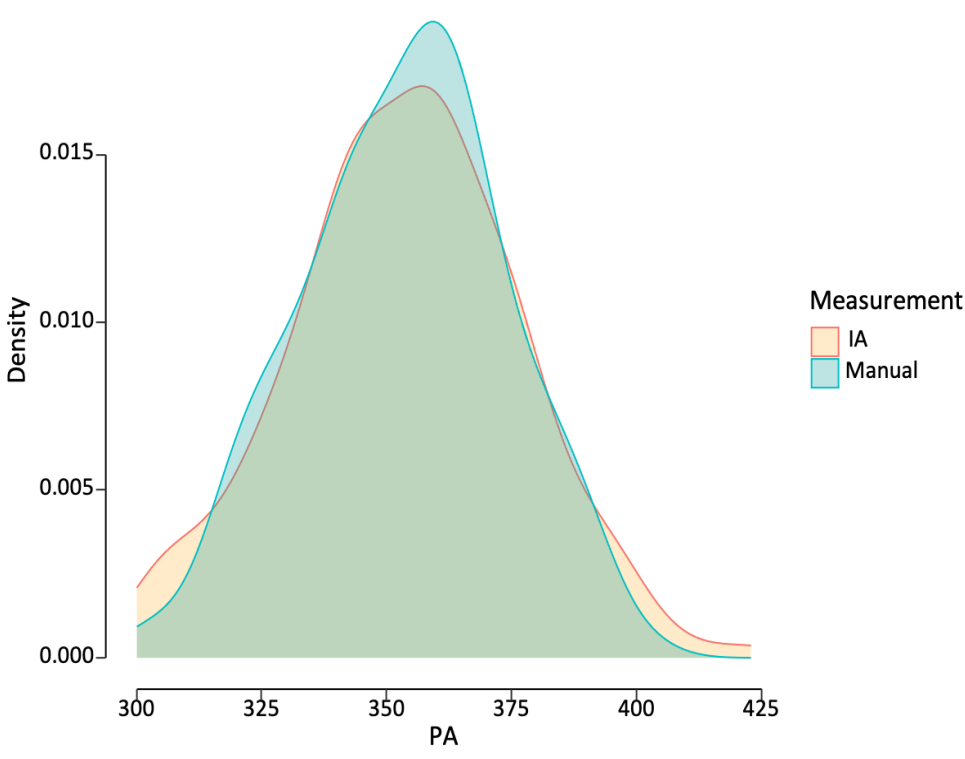
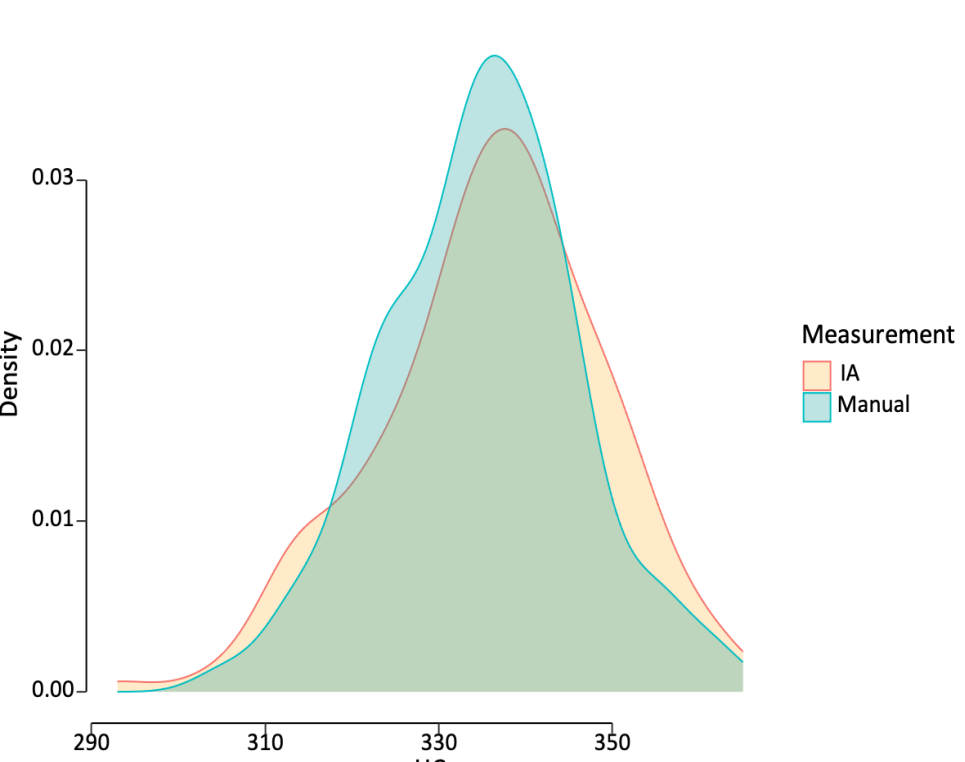


The duration of each examination was measured



RESULTS

A total of 174 women underwent both AI-assisted and manual measurements. AI significantly reduced the measurement time from an average of 16 seconds to 8 seconds (mean reduction of 12 seconds). Agreement between AI and manual methods was high for AC and EFW (CCC = 0.81, 95% CI 0.75–0.85), and FL (CCC = 0.80, 95% CI 0.76–0.84). However, agreement was lower for HC (CCC = 0.32, 95% CI 0.21–0.41). At the time of abstract submission, analysis of EFW and BW accuracy and their percentiles was ongoing, as many pregnancies were still undelivered.



CONCLUSIONS

AI-assisted methods significantly reduce examination time and show good concordance with manual measurements for most fetal biometric parameters and EFW. Final conclusions regarding the accuracy of BW prediction will be available upon completion of the study