

. <23> **A supervised texton based approach for automatic segmentation and measurement of the fetal head and femur in 2D ultrasound images**

This is a joint work with United Lincolnshire Hospitals NHS Trust, to develop an automated approach for accurate segmentation and measurement of ultrasound fetal head and femur. This paper presents a novel texton feature calculation, which is specific to ultrasound fetal anatomic structure, together with multi-scale image intensity for segmentation. The method is demonstrated to be promising for clinical applications. The practical value of this automatic system is to remove the dependence of measurements on operator judgement, providing more accurate and reproducible results. Physics in Medicine and Biology is a top journal in medical imaging category, the impact factor is 2.761.