

Title: "Structural neuroimage: experience in the study of brain development"

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In this talk I will present the challenges of quantitatively analyze Magnetic Resonance brain imaging in developing human brain. First, I will briefly recall the classical Bayesian classification techniques for brain tissue segmentation including Markov Random Field models and local and global optimization methods. In the second part of the talk, I will focus on in-vivo fetal imaging, reconstruction of super resolution image volume from clinical acquisitions and brain tissue segmentation methods for fetal brain in T2-weighted images.