Title: Analysing Videokymograms Using Classical and Deep Learning Methods

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Abstract: Videokymography (VKG) belongs to a family of medical imaging techniques capable of human larynx function visualization. Images produced by this method are ideal for automatic processing. In the last few years, the performance of deep learning systems increased significantly. In some areas, the machine learning approach exceeds the human experts in speed and accuracy. This doctoral thesis focuses on the continuous development of VKG image automatic analysis and touches on the possibility of connecting the classical approach to Videokymographic image processing with the modern computer vision approach.

Keywords: Videokymography, Medical Imaging, Digital Image Processing, Computer Vision, Machine Learning