

Evolution of information within sEMG signals in the process of treatment

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Colorectal cancer remains to be one among 5 most common types of cancer found for both men and women. Typically multimodal treatment including surgery, radiation and chemotherapy is applied. The electrical activity of external anal sphincter can serve as a potential source of knowledge of the actual state of the patient. The signals registered by means of the surface electromyography are typically highly complex thus create a challenge for its description. The loss of such complexity is often related with the pathological state. Entropy often serves as one of the nonlinear methods capable to grasp an internal structure of the signal together with the insight into its complexity over a wide range of scales. In this work we would discuss the usefulness of the most common techniques for the description of the loss of information carried out by the biomedical signals.

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