













Prediction of Neoadjuvant Chemotherapy Outcome in Breast Cancer Patients

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Abstract. *Breast Cancer* is the most common invasive cancer in women worldwide. Indeed, it is imperative to investigate which factors influence the development of this disease in order to improve the efficiency of the treatment and to allow for a balanced follow-up. In fact, this article has in mind an original *Case Based Reasoning (CBR)* approach to problem solving, complemented with a novel approach to *Knowledge Representation and Reasoning* that takes into consideration the data items entropic states. It works towards cancer's assessment after *Neoadjuvant Chemotherapy* in terms of its size, shape, and texture.

Keywords: Breast Cancer · Neoadjuvant Chemotherapy · Knowledge Representation and Reasoning · Case Based Reasoning · Entropy · Logic Programming