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## Supervised hashing with adaptive discrete optimization for multimedia retrieval

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## Abstract

Hashing techniques show significant advantage in dealing with enormous highdimensional image and multimedia data. Specifically, learning based hashing methods attract a lot of attention from researchers thanks to its great performance in image retrieval. But discrete constraint problem of learning based hashing methods makes the optimization extremely difficult, which can be shown to be NP hard. Thus, most of learning based hashing methods relax the constraint and get a suboptimal result. Recently, some researchers propose discrete optimization hashing techniques to learn hash bits without any relaxation and achieve promising results. But, discrete optimization hashing method like *Supervised Discrete Hashing (SDH)* roughly renews all binary codes and leads to a time-consuming problem. In this paper, we propose an *adaptive discrete cyclic coordinate descent (ACC)* method to effectively solve discrete optimization problem. The specific

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