

## **A Simplified Decoding Scheme of an Optical Transform Domain Error Control Code**

Tseng, Shu-Ming; Chang, Meng-chou; Chan, Hsiao-Lung; Hsu, Yao-Teng

### **Abstract**

Recently, an optical transform domain code was proposed. A hard error correction decoding scheme was also proposed. In this paper, we propose a novel decoding scheme of the optical transform domain error control code. The proposed decoder has reduced complexity. The proposed simplified decoding scheme still has coding gain about 3.7 dB in AWGN channels.

Key words : AWGN channels;Gain; Decoding circuit;Error correction;

Coding;Error correcting code;Decoding