Computer Science > Information Theory

Analytical Solution of Covariance Evolution for Irregular LDPC Codes

Nozaki Takayuki, Kenta Kasai, Sakaniwa Kohichi

(Submitted on 8 Nov 2010 (v1), last revised 9 Nov 2010 (this version, v2))

A scaling law developed by Amraoui et al. is a powerful technique to estimate the block error probability of finite length low-density parity-check (LDPC) codes. Solving a system of differential equations called covariance evolution is a method to obtain the scaling parameter. However, the covariance evolution has not been analytically solved. In this paper, we present the analytical solution of the covariance evolution for irregular LDPC code ensembles.

Comments:	13pages, submitted to IEEE trans. on information theory, January 2010
Subjects:	**Information Theory (cs.IT)**
Cite as:	**arXiv:1011.1701v2 [cs.IT]**

Submission history

From: Takayuki Nozaki [view email]
[v1] Mon, 8 Nov 2010 03:10:27 GMT (64kb)
[v2] Tue, 9 Nov 2010 14:07:18 GMT (64kb)

Which authors of this paper are endorsers?