News of 2009 autumn

Dear colleagues!

We represent the next updating of our site about the fastest and effective algorithms of noiseproof codes decoding.

We offer our reports for the Russian Fundamental Investigations Fund grant in 2008 and our offers on their usage. In Russian part of the site these reports are more detailed. The received results and offers are based that our MTD algorithms for binary codes are very effective and most quick in the world. It is defined by that we have learnt to realize MTD decoders in a hardware form as single-step schemes without any appreciable delay due to spent calculations. This year we received the next patent for the invention which has just established our priority and in these superfast calculations. Moreover, at each step of scheme work decisions of MTD are not about single symbol of a code, they are about the whole fragment of a code stream of the size $6 \div 24$ bits! This fact even more increases real speeds of decoding.

For non-binary (symbolic) codes ours QMTD decoders study to work at more and more high noise level. They have overtaken already in noise immunity (at many decimal exponents!) Read-Solomon (RS) codes which can be realized. And thus with growth of length of our codes speed QMTD does not fall at all. It is also extremely important for program realization of our coding systems for non-binary majority decoded codes.

See please ours demoprograms (software) for RS codes and QMTD. They are accessible to rewriting at the educational page of our site and they are accompanied by detailed instructions.

Our newest results on binary and symbolical codes are stated in reports at conference ISCTA'09 in England in July of this 2009.

By tradition we show also the author's abstract of the new master's thesis on not binary (symbolical) codes (in Russian!). The author has already got doctor degree for it. Thesis is at the educational page. We invite you to join to our investigations. Intensive interesting work in this mathematical and computer area of modern information science will allow active researchers to get quickly doctor degree.

We suggest to look also presentation of materials on parallel concatenation which has been published several years ago. It very well explains an essence of such schemes.

As usually, all our latest site updates are marked everywhere by badge '**new**'.

Best wishes!

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