About our start in 2021. Only forward!

Dear colleagues!

After a bit of a long break in updating our most advanced in the world { :) } portalonthe Optimization Theory(OT)ofnoiseproof coding(thisis almost no joke (!)) we are glad to update our contacts with you in the spring of 2021. We remind you that over the past six months, we have published an important review on the comparison of the OT methods and the capabilities of polar codes, focusing, of course, more on the works of Russian adherents of this field, which has given more relevance to the work we have done. This allowed interested specialists to pay attention to other Russian results on this and related topics, which also pleased us. There is no need to emphasize again that our OT school has an extremely negative attitude to publications on "polars". We believe that they usually do not meet any requirements for scientific works in terms of completeness, correctness and comparability with other already known (!) methods that have long been standard for OT and in general in the whole coding theory (CT) criteria "NVC”≡ "noiseproofness-veracity-complexity".

Of course, when data on polar codes that can be treated with a sufficient degree of confidence becomes available, we are ready to consider and clarify our understanding of their place in the world competition for decoding algorithms. However, we believe that this excitement about the non-existent advantages of the "polars" is already subsiding.

You may find English (quick)translation of this article at the page “antipolars” of the our new portal about OT together with original text:

https://decoders-zolotarev.ru/en/antipolars/

Well, and for dessert, of course, the main thing!

A new monograph on the research materials of our scientific school OThas been published.

You have already seen this Russianbook cover above.

It now presents a full range of the main most simple, effective and technologically advanced methods of OT: numerous types of MTD decoders and various, of course, also patented in the Russian Federation modifications of the Viterbi algorithm (VA).

We suggest you to translate this new Russian monograph:

optimalnye-algoritmy-dekodirovaniya-zolotareva.pdf (decoders-zolotarev.ru) .

All our previous English books on coding theory and OT you can rewrite all togetheror separatelyfromcorrespondingpage “book”:

Books | Decoders Zolotarev (decoders-zolotarev.ru) .

This new book has increased the number of hyperlinks to publications on related topics, to demo programs, and, most importantly, to various software platforms that allow you quickly to model and test the capabilities of very different decoders of many types.

Yes! The Shannon problem is completely solved by us down to the nearest neighborhoods of thecapacities for all classical channels considered in coding theory. But this problem is solved taking into account the possibilities of this theory, but, in main, on the basis of completely different long-known and deeply developed theories of the searching for global functionals extremum. Just for this purpose, we have developed a wide variety of software tools, without which the creation of algorithms that work at the extreme noise levels is, in principle, impossible. Only the means of searching for global functionals extremums on exponentially large digital decision arrays allow us to find such optimal decisions based on MTD algorithms in the OT researches.And these tools are in fact always unique innovative software packages, the creation of which, as it seems to us, is not concerned with any other scientific groups in the world. But there are no other ways to solve the Shannon problem, as the 60-year-old crisis of the former CT has shown!

More detailed comments on our new book you may find in Russian greeting 2021 page.

It is possible that for new readers of our portalitwill be useful first to read our booklet-comics about the OT successes and achievements, which can also be rewritten via the hyperlink from our new portal:

e-comics.pdf (decoders-zolotarev.ru) .

It should also be noted that among the authors of the comic is an academician and a member-correspondent of the Russian Academy of Sciences, which, of course, creates conditions for a very serious attitude even to reading such a slightly "lyrical" booklet.

Well, for a visual perception of the impressive work of the simplest block MTD decoder in the BSC channel at a very high noise level, we suggest that our readers, along with the initial reading of the comic, immediately rewrite our color cartoon about this MTD together with a very little its instruction:

demo program **.**

We think that the proposed illustrated booklet-manual and cartoon, together showing and explaining the capabilities of MTD algorithms for actually the simplest decoding, but with optimal i.e. best (as for a total searching) veracity, - they will help our readers to tune in to a very serious study the algorithms and OT technologies, for which, as we firmly believe, there are no competitors even on the horizon.

Good luck with your work!

Scientific School Optimization Theory (OT)