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Updating the system of standards and su-field analysis

Fundamental notions of su-field analysis (hereinafter referred to as SFA) and system comprising 76 standards have been developed by 1986. Since then no significant changes were introduced to SFA and 76 standards. At present the necessity of updating these standards and SFA is caused by the following reasons:

- SFA is poorly formalized. This fact: a) leads to problems during training; b) decreases the efficiency of SFA application quite considerably; and c) makes the use of SFA in software products more difficult
- The procedure of choosing a conflicting pair is missing in the currently used version of SFA (which fact impairs the instrumentality of SFA)
- Direct access is possible from the SFA only to the 1st, 2nd and 4th (partially) classes of the system of standards
- At present significant number of standards of the 3rd class was actually included in the tools of the Trends of Engineering System Evolution
- Some standards belonging to the 5th class of standards have lost their applicability
- Some standards belonging to the 5th class of standards was actually include din the base of physical effects with functional input

A number of approaches to solve this issue is proposed and the following conclusions were drawn by the author in his paper:

- Further development of su-field analysis and system of standards as independent tools is unreasonable and unpractical
- The majority of SFA functions is performed more efficiently by VEA, and it is just VEA that should be used instead of SFA. However, SFA is characterized by a number of specific features that are missing in the existing version of VEA. These features should be identified, formulated in terms of system of VEA notions and included in the set of VEA tools. In particular: a) tools for formulating problems of synthesis, evolution, forcing and destruction of su-field should be created based on SFA; b) standard models for contradiction resolution should be worked out on the basis of classes 1, 2 and 4; and c) a tool for solving trimming/deployment problems should be created on the basis of some standards belonging to class 5.
- The work on transferring class 3 standards to the Trends of Engineering System Evolution should be completed
- Detailed revision of standards belonging to classes 1, 2 and 4 is necessary. During these 28 years some standards became obsolete and lost their applicability, while other standards were accepted as engineering standard of knowledge.