

Indication of “Outliers” by Coded Information

(N. Otsuka, O. Schwerer, 2016-05-20, Memo CP/D-904)

Addition to Memo CP-D/904 by N.O. (summary): (1) This memo proposes possible prescription for indication of “outliers” but without quality judgement by the centre (as an option). (2) I also suggest compilers to indicate nonavailability of the source material for such outlier datasets additionally by a status code (LOST?).

Since WPEC SG30 (Improving the accessibility and quality of the EXFOR database), “outliers” (an experimental data set systematically deviating from various other experimental data sets) in EXFOR have been systematically detected by various approaches. They were checked against source materials, and various compilation mistakes have been solved. These outliers are usually one of the following types:

1. Outliers for which source materials are available, and there are compilation mistakes. Their source materials are available, and they will not be outliers after corrections.
2. Outliers for which source materials are available, and there are no compilation mistakes. The entries contain the data as presented by the authors.
3. Outliers for which source materials are not available, and cannot conclude whether the deviations are due to compilation mistakes or not.

EXFOR compilers are not in a position to do “quality scoring”. On the other hand, it should be allowed to keep such comments as those from individual EXFOR users and compilers. The following keywords and codes are relevant:

- Keyword REL-REF with the code C (Critical remarks)
- Keyword CRITIQUE with free text describing the critical remarks.
- Keyword STATUS with the code LOST (Source of data not available in any form.), or a new status code (e.g., NOSRC).

, and the following procedures could be applied for the 2nd and 3rd cases:

1. Outlier confirmed by a source material

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REL-REF      (C,A.J.Koning,W,KONING,2016)
CRITIQUE     A.Koning (2016-05-01): The data set shows large deviation
              from body of literature data. The data set is compiled as
              tabulated in the article.
STATUS       (TABLE) Table X of J.Nucl.Phys.12(1951)345.
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2. Outlier not confirmed by a source material

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REL-REF      (C,A.J.Koning,W,KONING,2016)
CRITIQUE     A.Koning (2016-05-01): The data set shows large deviation
              from body of literature data. Source material providing
              the data set is not available.
STATUS       (DASTR) Conversion of DASTR-627.
              (LOST?)
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