Bross I D J. How to use ridit analysis. *Biometrics* **14**:18-38, 1958.
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In biological and behavioral sciences, variables often have more information than dichotomous classifications but less than refined physical measurements. Distributional peculiarities can affect the validity or power of standard statistical methods. After simple empirical probability transformations of the variables, ridit analysis ensures robustness of standard methods. [The *Science Citation Index*® (*SCI*®) and the *Social Sciences Citation Index*® (*SSCI*®) indicate that this paper has been cited over 190 times since 1961.]

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"In 1950s studies of crash-injuries in highway accidents, the response variable used a graded scale (e.g., none, minor, moderate, severe, fatal). The common practice in analysis of contingency table data then (and sometimes now) was to avoid empty cells by collapsing to a dichotomous scale (e.g., nonfatal, fatal). In an effort to avoid losing information in this way, I invented ridit analysis, which involves a simple empirical cumulative probability transformation of the entire scale. There may be two main reasons for the citations. First, the procedure proved practical in a variety of applications and was cited as methodology. Second, mathematical statisticians have been interested in proving unique optimum properties for various models.

"An interesting point about citation practices in statistics and other areas is this: widely-used techniques tend to undergo name changes because minor (often insignificant) variants become fashionable. Variants are often named for the authors and only the latest variant may be cited. This tends to obscure the historical evolution of a discipline and to confuse students with a multiplicity of names for the same method.

"Because the rationale for ridit analysis was an acronym ('Relative to an Identified Distribution') plus the productive suffix '-it' which denotes a transformation, this may have avoided this confusion. A short and simple name seems to have survival value and to be preferred to personal names. Actually, however, ridit analysis was named for my wife, Rida.

"As the title 'How to use ridit analysis' suggests, my original purpose was to explain the use of the method rather than to derive it mathematically. The designation as Citation Classic suggests that the method has proved practical in a variety of applications and has been useful to researchers for a quarter of a century. However, I suspect it would be just about impossible to publish a 'how to' article for a useful new method in the current statistical literature. The editorial processes today in biostatistics and in my other disciplines focus on highly technical issues that are of interest (if to anyone) only to coteries in the discipline. Material in a discipline that would be of interest or of use to scientists in other disciplines is almost unpublishable. Some recent references have appeared in the American journal of Epidemiology and Annals of Statistics."[1-4]

1. **Brockett P L & Levine A.** On a characterization of ridits. *Ann. Statist.* **5**:1245-8, 1977.

2. **Selvin S.** A further note on the interpretation of ridit analysis. *Amer. J. Epidemiol.* **105**:16-20, 1977.

3. **Bross I D J.** Comment on ridit analysis by Dr. Bross. (Letter to the editor). *Amer. J. Epidemiol.* **107**:263-4, 1978.

4. ...., Reply by Dr. Bross: on biases in judging statistical methods. *Amer. J. Epidemiol.* **109**:30-2, 1979.