

Report #2

Referee's report on "Diagonalization of Circulant Matrices and Analogous Reductions for Group Reductions" by Roger Chalkley (MS #02-280)

In some ways, this paper has much to recommend it. The subject of the paper -- an exposition of important ideas about circulant matrices and how these extend to more general "group matrices" -- is appropriate for the Monthly. And the paper is carefully written. Nevertheless, I do not advise you to accept it, for the following reasons.

First, the paper is far too long: thirty-one pages on circulant matrices and related issues is too many to sustain the interest of even an avid matrix theorist, to say nothing of the Monthly's general readership.

Second, the paper becomes overly technical in a number of places, in ways that the recent Kalman and White Monthly paper (reference [21]) on a related theme managed to avoid. Indeed, large sections of the present paper would probably be more at home in a research journal than in an expository one, the author's characterization of the piece as expository notwithstanding. (I refer to matters of content, not to the quality and clarity of the writing, which is uniformly good.)

I was really put off by the introduction, which struck me as partly an exercise in territory marking. This comes out strongly in the comments concerning the Kalman and White article, which border on the ungracious.