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Geoscientific Model Development Discussions

Interactive comment on "Mapping the climate: guidance on appropriate techniques to map climate variables and their uncertainty" *by* N. R. Kaye et al.

Anonymous Referee #2

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Recommendation

This paper can be published after the revision following the recommendations

General Comments

This paper describes appropriate technique for the mapping climate variables with uncertainties. It contains useful information on general technique of mapping (e.g., effective usage of colors which appeals to intuition, appropriate usage of colors for people like color-vision impairment). Method for presentation of climate predictions which include uncertainties is very important, and I found that the method of this paper should be very useful for effectively showing model results with uncertainties in a single

map. Therefore, I recommend that this paper to be publishedafter revising thefollowing points.

1. Although authors discuss in section 6, I still found that the colors used in Fig. 9 are not easy to be distinguished. For example in Fig. 9 (b), the color of the smallestvalue category (-42.5 to -15%) with the second largest agreementcategory (80 to 95%) is very similar to that of the second smallest value (-15 to -5%) with the largest agreement (95 to 100%). I agree that the number of category in value should be five rather than three (or as large as possible). Can't this indistinguishableness be improved if authors use more different hues such as red, green, yellow, blue? Although it may not be suitable for the symbolism of color as described in section 3.3, it should be more important to distinguish values in this case.

2. The structure and main point of the paper is not easy to understand. I think the new conclusion of this paper is not shown clearly. In section 5, an approach recommended by Kaye (2010) is described, but arefollowing resultsjust an application of Kaye (2010)?In order to solve this problems, my recommendation is as follows. In the first section, demerits of previous researches and aim of this paper are described clearly and briefly. At the end of the first section,roles of each section arealso stated clearly. Maybe authors put section 2 to 4 in order to raise the problems of previous research and important general instructions for the mapping climate variables. "Introduction" might be more suitable as the title of the first section. In the later part of the sections, difference between the previous works (especially Kaye 2010) and the current work, new findings and original conclusions should be stated clearly.

Specific Comments

1. **Page 1882, Line 10:**As for the three attributes, it is not easy to understand the

difference between “value” and “saturation”. This idea is very important in this paper but may not be common to readers, so an example in the new figure showing three attributes should be very helpful.

2. **Page 1886, Line 9:** I sometime think that choices of maximum and minimum values also give different impressions.

3. **Page 1891, Line 6:**I think that directly comparison oftemperature and precipitation should be important because it gives difference in uncertainties in prediction.

Interactive comment on Geosci. Model Dev. Discuss., 4, 1875, 2011.