# Interactive comment on "Technical note: Recursive rediscretisation of geo-scientific data in the Modular Earth Submodel System (MESSy)" by P. Jöckel 

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I very much appreciated the attempt to have a rigorous mathematical formulation of the regridding algorithm described in this paper. Nevertheless, the description seems element-wise product of "sub-matrices" $P_{n_{i}, m_{i}}, i$ ranging from 1 to $K$. But, $P_{n_{i}, m_{i}}$ are elements of the sub-matrices that where not defined explicitly. The right-hand side should be intepreted as the multiplication of the matrixelements $P_{n_{i}, m_{i}}$ corresponding to the vector indices $(\vec{n}, \vec{m})$ and not as a element-wise multiplication of matrices.
The definitions at the beginning of section 2 may become clearer by explaining $A \subset R^{K}$
as a collection of subsets $A_{n}$ such that $\cup A_{n}=A$ and $A_{i} \cap A_{j}=\emptyset$. The measure should
be the Lebesgue measure.

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