Algorithm 1: Belief-based Prediction Aggregation

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1 <u>function Euclid (a, b)</u>;

   Input   : Probability distribution over target categories of all images for one product P, product D

   Output: Category prediction of the product

2 **for** $candidate \in cadidates\_pool$**do**

3   **for** $image \in imgaes_D$ **do**

4   *calculate exclusive average and standard deviation of probability predictions of candidate category among all images except for current image;*

5   **if** $P(candidate|image)$ *outside* 95% *confidence interval* **then**

6   *exclude the image;*

7   **else**

8   **end**

9 **end**

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