**MaxRectsBinPack**

Developed by Jukka Jylänki's

After loading the vector of rectangles, it is loaded int the algorithm developed by Jukka.

In this phase the steps are:

1. **Load the maximum theoretical square bin:** this is performed by getting the sum of width and the sum of height of all rectangles, and choose the biggest one. This is used to load the algorithm;
2. **Loop the iterations**: we will need repeat several insertions so the algorithm can get the best results. the mains ones are:
   * 1. **Ordered**, from the rectangle with the biggest area to smaller area;
     2. **Shuffled**, after each loop the rectangles are shuffled randomly.
     3. **Heuristics**: five types of different heuristic are provided by Jukka, and each one can enabled flipping the rectangle:
        1. **BSSF**: Best Short Side Fit;
        2. **BLSF**: Best Long Side Fit;
        3. **BAF**: Best Area Fit;
        4. **BL**: Bottom Left Rule;
        5. **CP**: Contact Point Rule;
3. **Results**: This is performed by looking into the all bin packs solutions and look for the one that is using less area. Take the biggest side (width or height) and that will be the side solution for the square.