

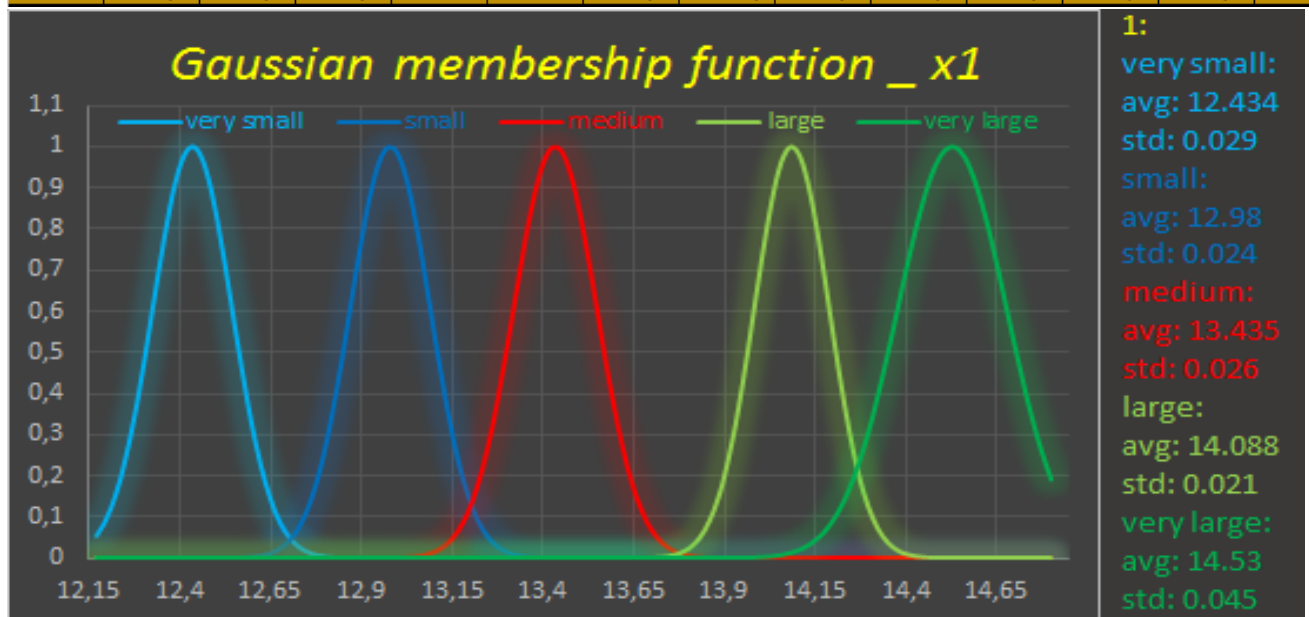
Contemporary Data Processing Technology (CCOD)

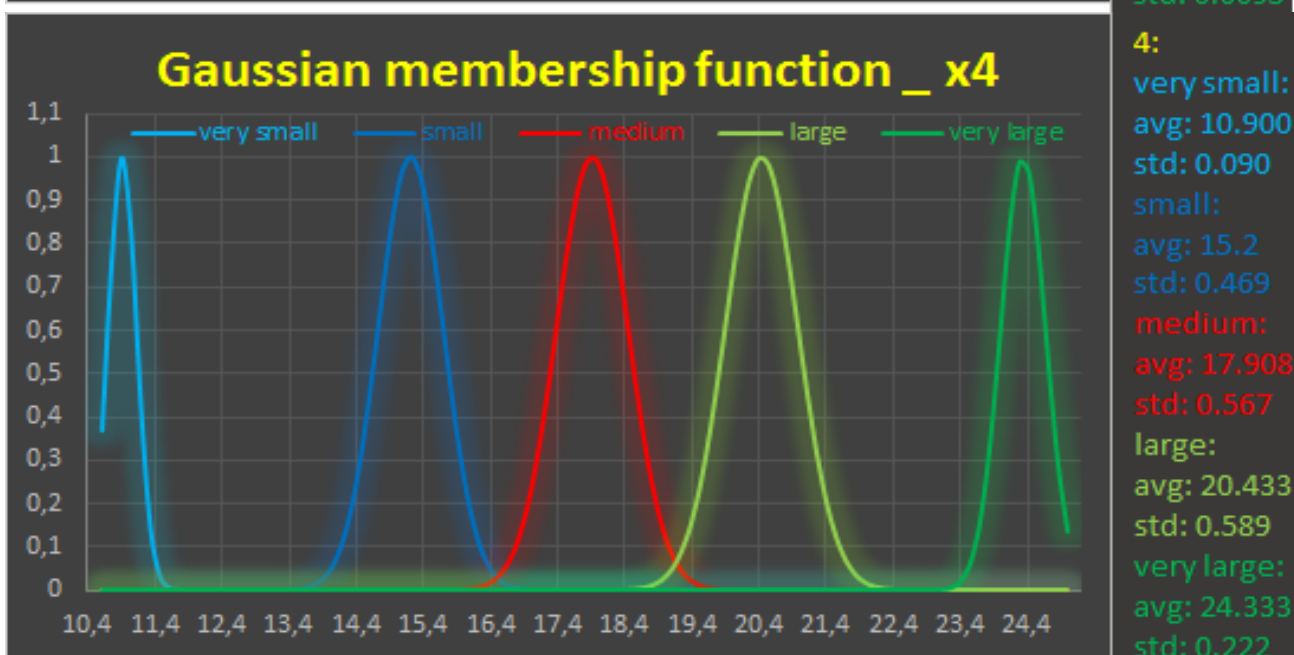
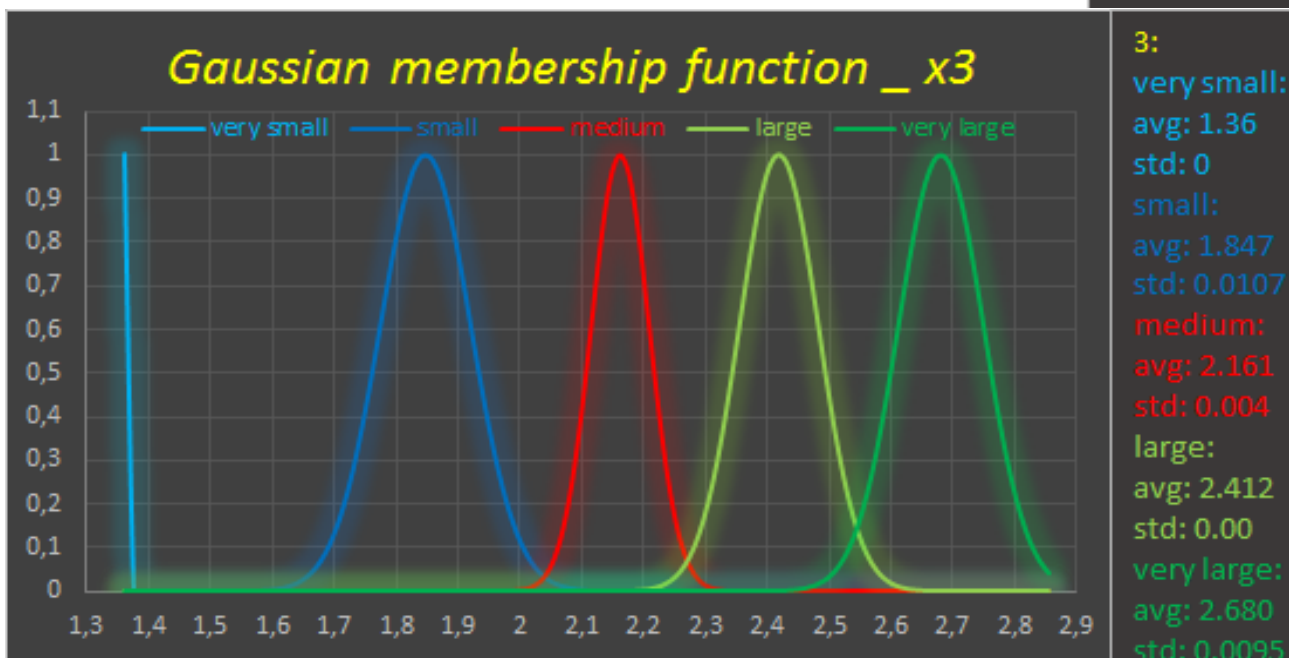
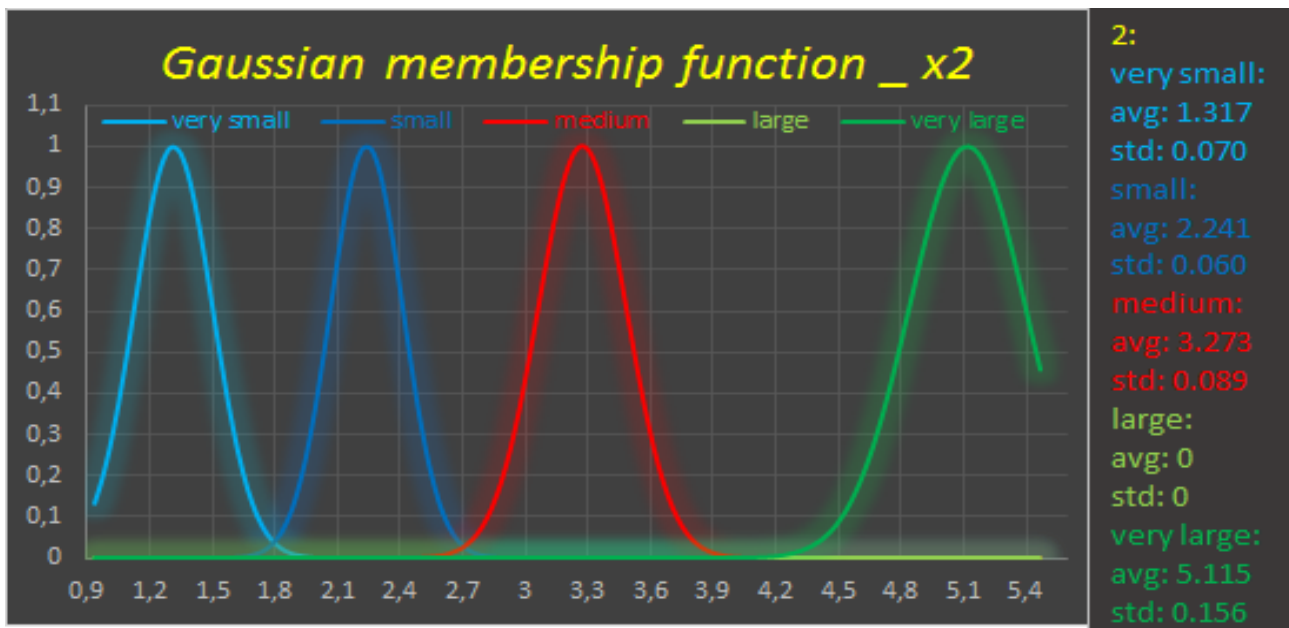
Lab 9 (October 27, 2016)

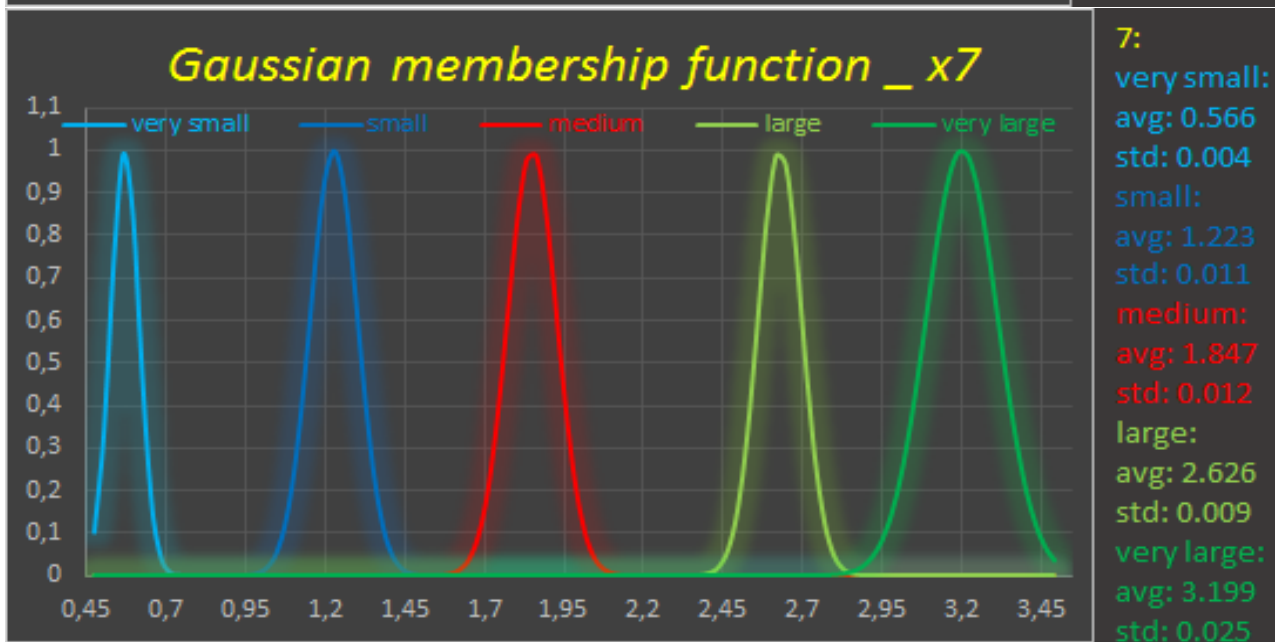
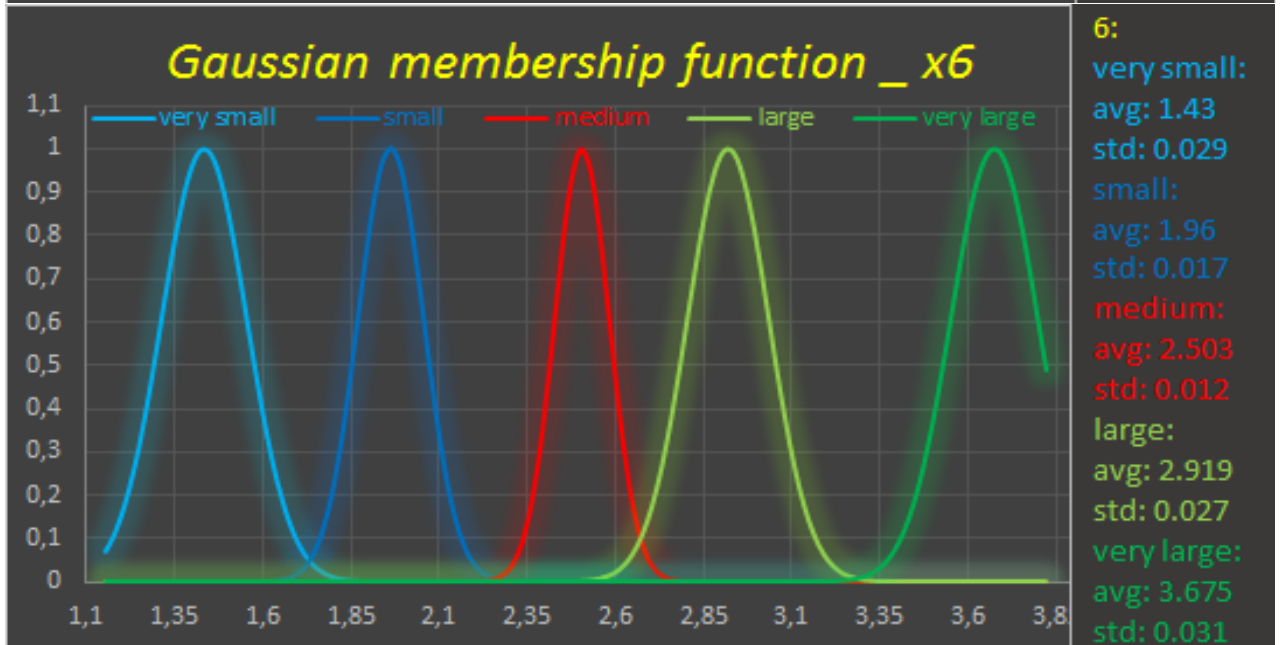
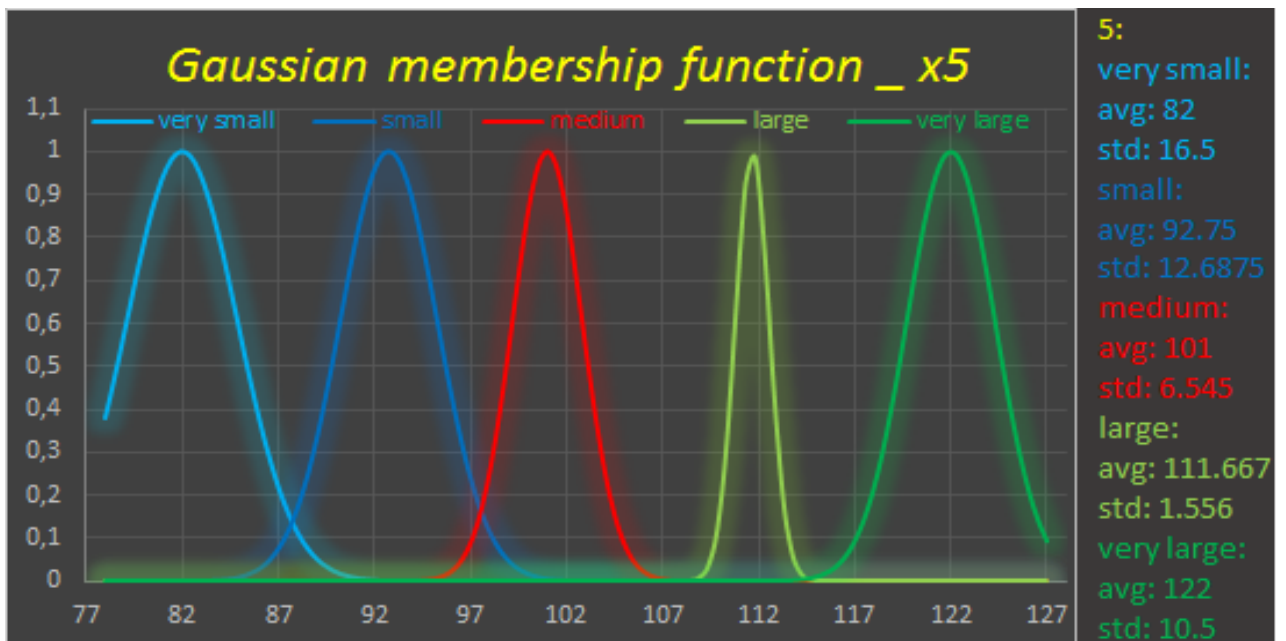
Chekun Roman, AS-36

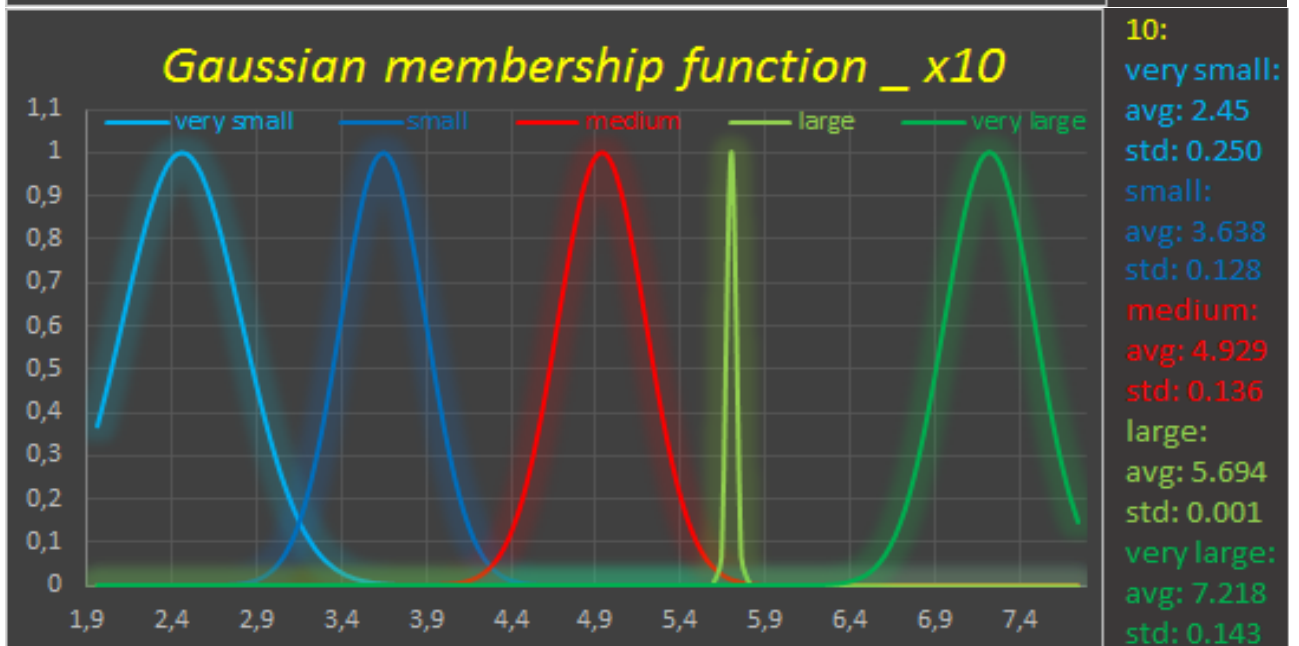
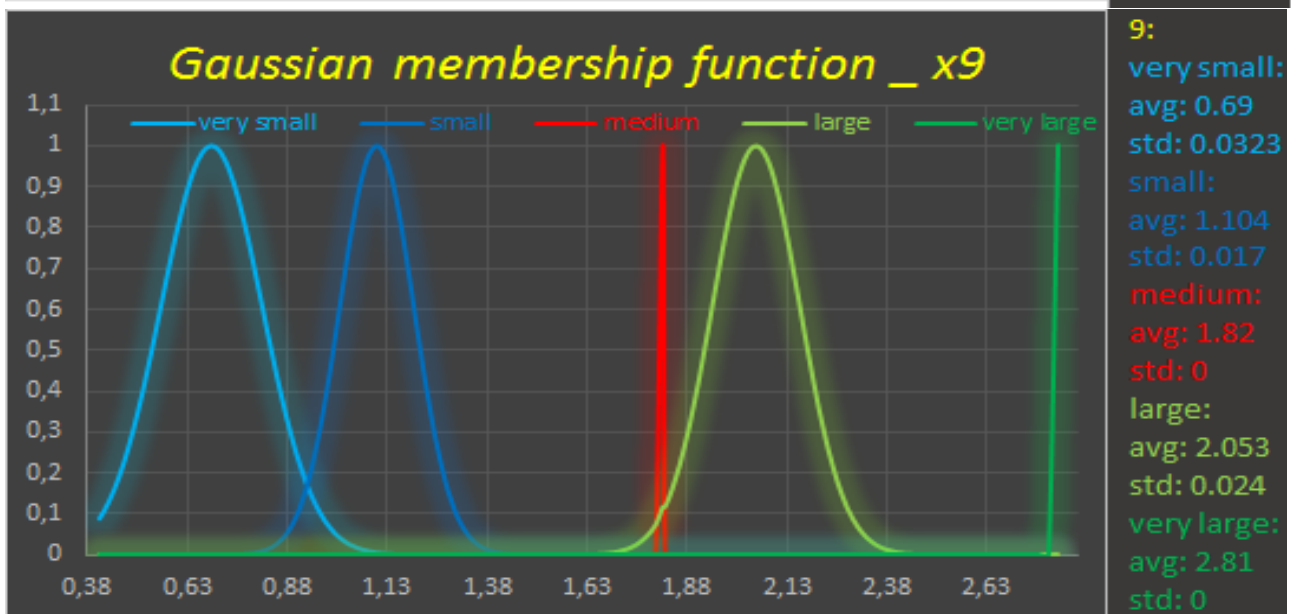
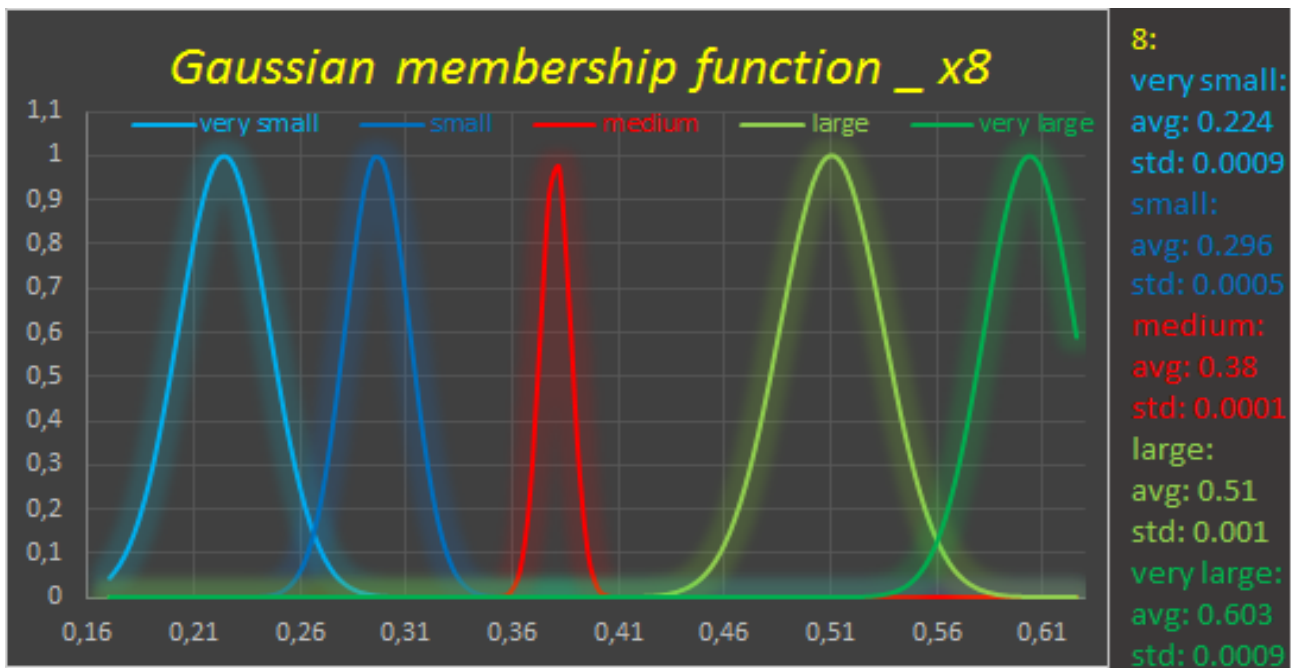
Initial data

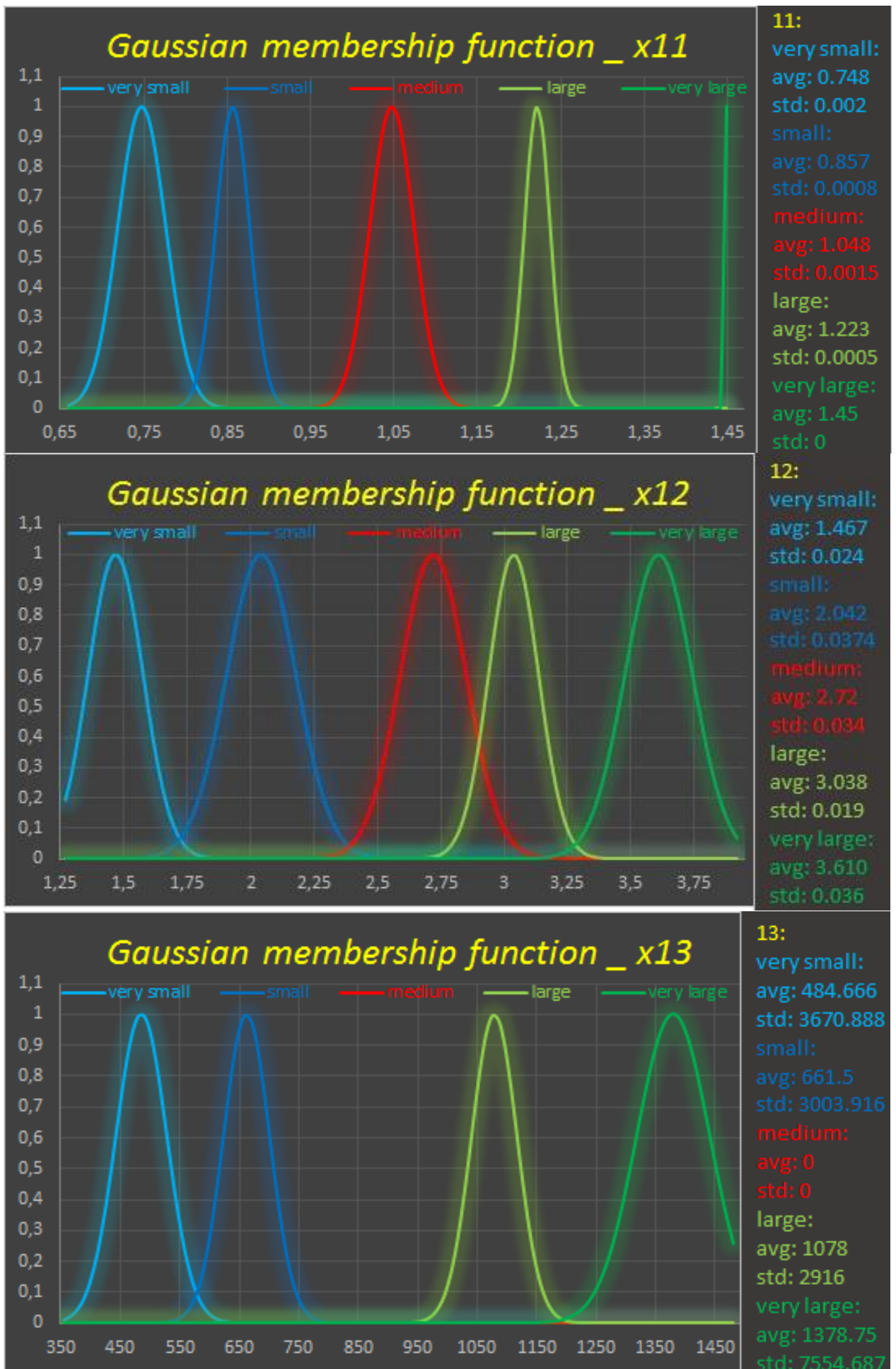
| class | x1 | x2 | x3 | x4 | x5 | x6 | x7 | x8 | x9 | x10 | x11 | x12 | x13 |
|-------|-------|------|------|------|-----|------|------|------|------|------|------|------|------|
| 1 | 14,23 | 1,71 | 2,43 | 15,6 | 127 | 2,8 | 3,06 | 0,28 | 2,29 | 5,64 | 1,04 | 3,92 | 1065 |
| | 13,2 | 1,78 | 2,14 | 11,2 | 100 | 2,65 | 2,76 | 0,26 | 1,28 | 4,38 | 1,05 | 3,4 | 1050 |
| | 13,16 | 2,36 | 2,67 | 18,6 | 101 | 2,8 | 3,24 | 0,3 | 2,81 | 5,68 | 1,03 | 3,17 | 1185 |
| | 14,37 | 1,95 | 2,5 | 16,8 | 113 | 3,85 | 3,49 | 0,24 | 2,18 | 7,8 | 0,86 | 3,45 | 1480 |
| | 13,24 | 2,59 | 2,87 | 21 | 118 | 2,8 | 2,69 | 0,39 | 1,82 | 4,32 | 1,04 | 2,93 | 735 |
| | 14,2 | 1,76 | 2,45 | 15,2 | 112 | 3,27 | 3,39 | 0,34 | 1,97 | 6,75 | 1,05 | 2,85 | 1450 |
| | 14,39 | 1,87 | 2,45 | 14,6 | 96 | 2,5 | 2,52 | 0,3 | 1,98 | 5,25 | 1,02 | 3,58 | 1290 |
| | 14,06 | 2,15 | 2,61 | 17,6 | 121 | 2,6 | 2,51 | 0,31 | 1,25 | 5,05 | 1,06 | 3,58 | 1295 |
| | 14,83 | 1,64 | 2,17 | 14 | 97 | 2,8 | 2,98 | 0,29 | 1,98 | 5,2 | 1,08 | 2,85 | 1045 |
| | 13,86 | 1,35 | 2,27 | 16 | 98 | 2,98 | 3,15 | 0,22 | 1,85 | 7,22 | 1,01 | 3,55 | 1045 |
| 2 | 12,37 | 0,94 | 1,36 | 10,6 | 88 | 1,98 | 0,57 | 0,28 | 0,42 | 1,95 | 1,05 | 1,82 | 520 |
| | 12,33 | 1,1 | 2,28 | 16 | 101 | 2,05 | 1,09 | 0,63 | 0,41 | 3,27 | 1,25 | 1,67 | 680 |
| | 12,64 | 1,36 | 2,02 | 16,8 | 100 | 2,02 | 1,41 | 0,53 | 0,62 | 5,75 | 0,98 | 1,59 | 450 |
| | 13,67 | 1,25 | 1,92 | 18 | 94 | 2,1 | 1,79 | 0,32 | 0,73 | 3,8 | 1,23 | 2,46 | 630 |
| | 12,37 | 1,13 | 2,16 | 19 | 87 | 3,5 | 3,1 | 0,19 | 1,87 | 4,45 | 1,22 | 2,87 | 420 |
| | 12,17 | 1,45 | 2,53 | 19 | 104 | 1,89 | 1,75 | 0,45 | 1,03 | 2,95 | 1,45 | 2,23 | 355 |
| | 12,37 | 1,21 | 2,56 | 18,1 | 98 | 2,42 | 2,65 | 0,37 | 2,08 | 4,6 | 1,19 | 2,3 | 678 |
| | 13,11 | 1,01 | 1,7 | 15 | 78 | 2,98 | 3,18 | 0,26 | 2,28 | 5,3 | 1,12 | 3,18 | 502 |
| | 12,37 | 1,17 | 1,92 | 19,6 | 78 | 2,11 | 2 | 0,27 | 1,04 | 4,68 | 1,12 | 3,48 | 510 |
| | 13,34 | 0,94 | 2,36 | 17 | 110 | 2,53 | 1,3 | 0,55 | 0,42 | 3,17 | 1,02 | 1,93 | 750 |
| 3 | 12,86 | 1,35 | 2,32 | 18 | 122 | 1,51 | 1,25 | 0,21 | 0,94 | 4,1 | 0,76 | 1,29 | 630 |
| | 12,88 | 2,99 | 2,4 | 20 | 104 | 1,3 | 1,22 | 0,24 | 0,83 | 5,4 | 0,74 | 1,42 | 530 |
| | 12,81 | 2,31 | 2,4 | 24 | 98 | 1,15 | 1,09 | 0,27 | 0,83 | 5,7 | 0,66 | 1,36 | 560 |
| | 12,7 | 3,55 | 2,36 | 21,5 | 106 | 1,7 | 1,2 | 0,17 | 0,84 | 5 | 0,78 | 1,29 | 600 |
| | 12,51 | 1,24 | 2,25 | 17,5 | 85 | 2 | 0,58 | 0,6 | 1,25 | 5,45 | 0,75 | 1,51 | 650 |
| | 12,6 | 2,46 | 2,2 | 18,5 | 94 | 1,62 | 0,66 | 0,63 | 0,94 | 7,1 | 0,73 | 1,58 | 695 |
| | 12,25 | 4,72 | 2,54 | 21 | 89 | 1,38 | 0,47 | 0,53 | 0,8 | 3,85 | 0,75 | 1,27 | 720 |
| | 12,53 | 5,51 | 2,64 | 25 | 96 | 1,79 | 0,6 | 0,63 | 1,1 | 5 | 0,82 | 1,69 | 515 |
| | 13,49 | 3,59 | 2,19 | 19,5 | 88 | 1,62 | 0,48 | 0,58 | 0,88 | 5,7 | 0,81 | 1,82 | 580 |
| | 12,84 | 2,96 | 2,61 | 24 | 101 | 2,32 | 0,6 | 0,53 | 0,81 | 4,92 | 0,89 | 2,15 | 590 |











| Rules | | | | | | | | | | | | | |
|-------|----------------|-----|----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|------|----------------|
| IF | X_1=large | AND | X_2=very small | AND | X_3=large | AND | X_4=medium | AND | X_5=small | AND | X_6=medium | AND | X_7=large |
| IF | X_1=large | AND | X_2=very small | AND | X_3=large | AND | X_4=medium | AND | X_5=small | AND | X_6=medium | AND | X_7=large |
| IF | X_1=medium | AND | X_2=very small | AND | X_3=small | AND | X_4=medium | AND | X_5=medium | AND | X_6=small | AND | X_7=small |
| IF | X_1=very small | AND | X_2=very small | AND | X_3=medium | AND | X_4=very large | AND | X_5=medium | AND | X_6=small | AND | X_7=medium |
| IF | X_1=very small | AND | X_2=medium | AND | X_3=medium | AND | X_4=large | AND | X_5=large | AND | X_6=very small | AND | X_7=very small |
| IF | X_1=small | AND | X_2=very large | AND | X_3=medium | AND | X_4=medium | AND | X_5=large | AND | X_6=small | AND | X_7=very small |
| IF | X_1=very large | AND | X_2=small | AND | X_3=very large | AND | X_4=very small | AND | X_5=very large | AND | X_6=large | AND | X_7=very large |
| | | | | | | | | | | | | | |
| AND | X_8=very small | AND | X_9=medium | AND | X_10=large | AND | X_11=medium | AND | X_12=large | AND | X_13=large | THEN | A |
| AND | X_8=small | AND | X_9=large | AND | X_10=medium | AND | X_11=large | AND | X_12=medium | AND | X_13=very large | THEN | |
| AND | X_8=small | AND | X_9=large | AND | X_10=medium | AND | X_11=large | AND | X_12=medium | AND | X_13=small | THEN | B |
| AND | X_8=small | AND | X_9=large | AND | X_10=medium | AND | X_11=medium | AND | X_12=very small | AND | X_13=small | THEN | |
| AND | X_8=large | AND | X_9=very small | AND | X_10=very large | AND | X_11=very small | AND | X_12=medium | AND | X_13=very small | THEN | C |
| AND | X_8=small | AND | X_9=small | AND | X_10=medium | AND | X_11=small | AND | X_12=small | AND | X_13=very small | THEN | |
| AND | X_8=medium | AND | X_9=medium | AND | X_10=large | AND | X_11=very large | AND | X_12=very large | AND | X_13=medium | THEN | other |

| | Family A | Family B | Family C | Evaluation |
|--------------|----------------------|----------------------|----------------------|------------|
| | Rule - 1 | Rule - 2 | Rule - 3 | |
| No. | A or B or C or other | A or B or C or other | A or B or C or other | |
| #1 | A | B | C | Good |
| #2 | A | B | C | Good |
| #3 | A | A | C | Not Good |
| #4 | A | B | C | Good |
| #5 | A | A | C | Not Good |
| Success rate | 100% | 60% | 100% | 60% |