

Supplementary table 1. Performance of angular filtering of volumes with random knots of a constant intensity, expressed by mean relevancies of improvement of FOMs. In case of the foreground mean separability FOMs and SNR in reconstructions, simple ratio of angularly filtered versus unfiltered FOMs or SNRs, respectively, was used. Statistically significant improvement is depicted by numbers in bold, inferior performance by standard font, and insignificant changes in performance by underlined italic font. Filters in rows 1,2 and 3 demonstrate the effect of a decreasing weight of the missing wedge ramp at the highest-tilt projection, filters in rows 4, 2 and 5 the effect of narrowing of the central stripe, and filters in rows 6, 2 and 7 the effect of an increasing length of the missing wedge ramp.

		Whole volume eFOM						Signal voxels eFOM						Background voxels eFOM					
		SNR in projections						SNR in projections						SNR in projections					
angular filter		0.01	0.1	0.5	1	5	∞	0.01	0.1	0.5	1	5	∞	0.01	0.1	0.5	1	5	∞
1	bfly20-4-0.5-15-4-10	<b>3.07</b>	<b>3.08</b>	<b>2.99</b>	<b>2.63</b>	-0.85	-3.37	<b>2.92</b>	<b>2.80</b>	<b>0.44</b>	-3.45	-9.94	-9.87	<b>3.09</b>	<b>3.09</b>	<b>3.11</b>	<b>3.07</b>	<b>4.32</b>	<b>6.18</b>
2	bfly20-4-0.2-15-4-10	<b>8.23</b>	<b>8.25</b>	<b>8.00</b>	<b>7.00</b>	-2.88	-9.79	<b>7.91</b>	<b>7.65</b>	<b>2.03</b>	-7.18	-22.69	-22.28	<b>8.28</b>	<b>8.28</b>	<b>8.28</b>	<b>8.02</b>	<b>8.41</b>	<b>8.58</b>
3	bfly20-4-0.13-15-4-10	<b>11.61</b>	<b>11.63</b>	<b>11.28</b>	<b>9.89</b>	-4.03	-13.68	<b>11.20</b>	<b>10.83</b>	<b>3.37</b>	-8.76	-29.19	-28.63	<b>11.67</b>	<b>11.66</b>	<b>11.66</b>	<b>11.23</b>	<b>10.33</b>	<b>8.32</b>
4	bfly20-4-0.2-25-4-20	<b>7.74</b>	<b>7.77</b>	<b>7.63</b>	<b>6.96</b>	<b>1.54</b>	-2.49	<b>7.52</b>	<b>7.40</b>	<b>4.78</b>	<u>0.38</u>	-6.54	-6.62	<b>7.78</b>	<b>7.78</b>	<b>7.76</b>	<b>7.44</b>	<b>6.15</b>	<b>3.57</b>
5	bfly20-4-0.2-8-2-4	<b>8.57</b>	<b>8.59</b>	<b>8.16</b>	<b>6.66</b>	-10.33	-21.84	<b>8.17</b>	<b>7.64</b>	-3.05	-20.24	-51.16	-49.68	<b>8.63</b>	<b>8.62</b>	<b>8.69</b>	<b>8.59</b>	<b>12.91</b>	<b>19.20</b>
6	bfly10-4-0.2-15-4-10	<b>4.69</b>	<b>4.71</b>	<b>4.55</b>	<b>3.93</b>	-2.31	-6.68	<b>4.48</b>	<b>4.30</b>	<b>0.72</b>	-5.21	-15.18	-14.99	<b>4.72</b>	<b>4.72</b>	<b>4.73</b>	<b>4.59</b>	<b>5.01</b>	<b>5.53</b>
7	bfly40-4-0.2-15-4-10	<b>16.26</b>	<b>16.28</b>	<b>15.85</b>	<b>14.12</b>	-2.84	-14.77	<b>15.74</b>	<b>15.29</b>	<b>6.35</b>	-8.14	-32.32	-31.80	<b>16.34</b>	<b>16.31</b>	<b>16.30</b>	<b>15.72</b>	<b>13.98</b>	<b>10.28</b>
		range FOM						Signal voxels std. deviation FOM						Background voxels std. deviation FOM					
		SNR in projections						SNR in projections						SNR in projections					
angular filter		0.01	0.1	0.5	1	5	∞	0.01	0.1	0.5	1	5	∞	0.01	0.1	0.5	1	5	∞
1	bfly20-4-0.5-15-4-10	<b>1.21</b>	<b>1.51</b>	<b>1.74</b>	<b>2.11</b>	<b>4.71</b>	<b>6.11</b>	<b>1.49</b>	<b>1.48</b>	<b>1.53</b>	<b>1.55</b>	<b>2.06</b>	<b>2.57</b>	<b>1.56</b>	<b>1.56</b>	<b>1.57</b>	<b>1.55</b>	<b>2.24</b>	<b>3.29</b>
2	bfly20-4-0.2-15-4-10	<b>3.59</b>	<b>4.11</b>	<b>4.21</b>	<b>5.65</b>	<b>11.53</b>	<b>14.21</b>	<b>4.10</b>	<b>4.06</b>	<b>4.16</b>	<b>4.18</b>	<b>5.34</b>	<b>6.41</b>	<b>4.23</b>	<b>4.23</b>	<b>4.23</b>	<b>4.10</b>	<b>4.43</b>	<b>4.68</b>
3	bfly20-4-0.13-15-4-10	<b>5.07</b>	<b>5.82</b>	<b>6.03</b>	<b>7.61</b>	<b>15.05</b>	<b>17.96</b>	<b>5.85</b>	<b>5.78</b>	<b>5.88</b>	<b>5.87</b>	<b>7.12</b>	<b>8.33</b>	<b>6.02</b>	<b>6.01</b>	<b>6.01</b>	<b>5.79</b>	<b>5.48</b>	<b>4.66</b>
4	bfly20-4-0.2-25-4-20	<b>3.14</b>	<b>4.08</b>	<b>3.38</b>	<b>4.43</b>	<b>6.93</b>	<b>9.43</b>	<b>3.89</b>	<b>3.84</b>	<b>3.84</b>	<b>3.62</b>	<b>3.10</b>	<b>3.16</b>	<b>3.97</b>	<b>3.97</b>	<b>3.96</b>	<b>3.79</b>	<b>3.17</b>	<b>1.91</b>
5	bfly20-4-0.2-8-2-4	<b>3.68</b>	<b>4.33</b>	<b>4.56</b>	<b>7.69</b>	<b>13.69</b>	<b>14.35</b>	<b>4.24</b>	<b>4.21</b>	<b>4.49</b>	<b>5.00</b>	<b>9.30</b>	<b>11.12</b>	<b>4.41</b>	<b>4.41</b>	<b>4.45</b>	<b>4.41</b>	<b>6.98</b>	<b>10.96</b>
6	bfly10-4-0.2-15-4-10	<b>1.77</b>	<b>2.60</b>	<b>2.26</b>	<b>2.98</b>	<b>5.96</b>	<b>7.97</b>	<b>2.30</b>	<b>2.27</b>	<b>2.33</b>	<b>2.26</b>	<b>2.42</b>	<b>3.07</b>	<b>2.39</b>	<b>2.39</b>	<b>2.39</b>	<b>2.33</b>	<b>2.62</b>	<b>3.00</b>
7	bfly40-4-0.2-15-4-10	<b>7.25</b>	<b>8.54</b>	<b>9.04</b>	<b>10.74</b>	<b>19.95</b>	<b>23.13</b>	<b>8.33</b>	<b>8.22</b>	<b>8.30</b>	<b>8.27</b>	<b>9.75</b>	<b>10.85</b>	<b>8.53</b>	<b>8.52</b>	<b>8.51</b>	<b>8.21</b>	<b>7.46</b>	<b>5.80</b>
		Foreground mean separability FOM						detectability error FOM						SNR					
		SNR in projections						SNR in projections						SNR in projections					
angular filter		0.01	0.1	0.5	1	5	∞	0.01	0.1	0.5	1	5	∞	0.01	0.1	0.5	1	5	∞
1	bfly20-4-0.5-15-4-10	<u>1.00</u>	0.97	0.97	0.97	0.97	0.98	<b>0.00</b>	<u>0.00</u>	-0.02	-0.62	-10.08	-10.75	<b>1.02</b>	0.99	0.99	0.99	1.00	<b>1.02</b>
2	bfly20-4-0.2-15-4-10	<u>1.01</u>	0.94	0.93	0.94	0.95	0.96	<b>0.00</b>	<u>0.00</u>	-0.04	-1.22	-24.03	-29.10	<b>1.06</b>	0.98	0.98	0.98	0.98	0.99
3	bfly20-4-0.13-15-4-10	<b>1.04</b>	0.93	0.92	0.93	0.93	0.95	<b>0.00</b>	<u>0.00</u>	-0.04	-1.43	-31.35	-41.42	<b>1.11</b>	<u>0.99</u>	0.99	0.99	0.98	0.96
4	bfly20-4-0.2-25-4-20	<b>1.04</b>	<b>1.01</b>	<b>1.00</b>	<b>1.00</b>	1.00	1.00	<b>0.00</b>	<u>0.00</u>	<b>0.01</b>	<b>0.12</b>	-1.24	-4.32	<b>1.09</b>	<b>1.05</b>	<b>1.05</b>	<b>1.05</b>	<b>1.03</b>	1.00
5	bfly20-4-0.2-8-2-4	0.84	0.82	0.83	0.84	0.87	0.89	<b>0.00</b>	<u>0.00</u>	-0.09	-2.92	-67.09	-77.91	0.91	0.87	0.87	0.88	0.92	<u>1.00</u>
6	bfly10-4-0.2-15-4-10	<u>1.00</u>	0.95	0.95	0.95	0.95	0.96	<b>0.00</b>	<u>0.00</u>	-0.03	-0.88	-17.99	-23.21	<b>1.03</b>	0.98	0.98	0.98	0.98	0.99
7	bfly40-4-0.2-15-4-10	<b>1.07</b>	0.93	0.93	0.93	0.94	0.96	<b>0.00</b>	<u>0.00</u>	-0.04	-1.30	-28.81	-39.34	<b>1.18</b>	<b>1.03</b>	<b>1.03</b>	<b>1.02</b>	<u>1.00</u>	0.97

