Table 1. *The densities in the simulation testbed*

	$f(x), x \in [0,1]$	Description
1	$140x^3(1-x)^3$	Beta$(4,4)$
2	$1120\left[x^3(1-2x)^3 I_{\{x\le 1/2\}} + 8\left(x-\frac{1}{2}\right)^3(1-x)^3 I_{\{x\ge 1/2\}}\right]$	$\frac{1}{2}$Beta$_{[0,1/2]}(4,4)+\frac{1}{2}$Beta$_{[1/2,1]}(4,4)$
3	$3x^2$	Beta$(3,1)$
4	$\frac{3}{2}\{x^2+(1-x)^2\}$	$\frac{1}{2}$Beta$(3,1)+\frac{1}{2}$Beta$(1,3)$
5	$\{\pi\sqrt{x(1-x)}\}^{-1}$	Beta$(\frac{1}{2},\frac{1}{2})$
6	$\frac{231}{463}(1+3x)^5(1-x)^5$	Truncated Beta$_{[-1/3,1]}(6,6)$
7	$2e^{-2x}(1-e^{-2})^{-1}$	Truncated Exponential(2)
8	$\frac{2240}{1759}\left\{1-\left(x-\frac{1}{2}\right)^2\right\}^3$	Truncated Beta$_{[-1/2,3/2]}(4,4)$
9	$\frac{35}{16}(1-x^2)^3$	Truncated Beta$_{[-1,1]}(4,4)$
10	$2\{\pi\sqrt{x(2-x)}\}^{-1}$	Truncated Beta$_{[0,2]}(1/2,1/2)$
11	$2e^{-2x^2}\left[\sqrt{2\pi}\left\{\Phi(2)-\frac{1}{2}\right\}\right]^{-1}$	Truncated $2\phi(2x)$
12	$\frac{1}{2}+280\left(2x-\frac{1}{2}\right)^3\left(\frac{3}{2}-2x\right)^3 I_{\{1/4\le x\le 3/4\}}$	$\frac{1}{2}$Beta$(1,1)+\frac{1}{2}$Beta$_{[1/4,3/4]}(4,4)$
13	$294x(1-x)^{19}+33x^9(1-x)$	$\frac{7}{10}$Beta$(2,20)+\frac{3}{10}$Beta$(10,2)$
14	$102060\left[\sum_{i=1}^3\left\{x-\frac{(i-1)}{3}\right\}^3 \times\left(\frac{i}{3}-x\right)^3 I_{\{(i-1)/3\le x\le i/3\}}\right]$	$\frac{1}{3}\sum_{i=1}^3$ Beta$_{[(i-1)/3,i/3]}(4,4)$
15	$c(x,0.7;0.7)$	Gaussian copula
16	$5e^{-\left\lvert x-\frac{1}{2}\right\rvert}(1-e^{-5})^{-1}$	Truncated Laplace$(1/2,1/10)$

In the table, $I_{\{A\}}$ is the indicator function which equals 1 if A is true and 0 otherwise, $c(x,y;\rho)$ is specifically the *Gaussian* copula given by (4), Beta(a,b) denotes the beta density with parameters a and b, Beta$_{[c,d]}(a,b)$ denotes the beta density rescaled to the interval $[c,d]$ and "truncated" means truncated to $[0,1]$.

Fig. 4. Densities used in the simulation study. Their formulae are given in Table 1.