Appendix

Table A.1 Coefficients of the approximations for GLO distribution.

	$\tau_4^0 = 1.2260172 \times 10^{-1}$	
$A_0 = 4.8860251 \times 10^{-1}$	$C_0 = 1.8756590 \times 10^{-1}$	$E_0 = 2.0466534$
$A_1 = 4.4493076 \times 10^{-3}$	$C_1 = -2.5352147 \times 10^{-3}$	$E_1 = -3.6544371$
$A_2 = 8.8027039 \times 10^{-4}$	$C_2 = 2.6995102 \times 10^{-4}$	$E_2 = 1.8396733$
$A_3 = 1.1507084 \times 10^{-6}$	$C_3 = -1.8446680 \times 10^{-6}$	$E_3 = -0.20360244$
$B_1 = 6.4662924 \times 10^{-2}$	$D_1 = 8.2325617 \times 10^{-2}$	$F_1 = -2.0182173$
$B_2 = 3.3090406 \times 10^{-3}$	$D_2 = 4.2681448 \times 10^{-3}$	$F_2 = 1.2420401$
$B_3 = 7.4290680 \times 10^{-5}$	$D_3 = 1.1653690 \times 10^{-4}$	$F_3 = -0.21741801$

Table A.2 Coefficients of the approximation for PE3 distribution

$A_0 = 3.2573501 \times 10^{-1}$	$C_0 = 1.2260172 \times 10^{-1}$
$A_1 = 1.6869150 \times 10^{-1}$	$C_1 = 5.3730130 \times 10^{-2}$
$A_2 = 7.8327243 \times 10^{-2}$	$C_2 = 4.3384378 \times 10^{-2}$
$A_3 = -2.9120539 \times 10^{-3}$	$C_3 = 1.1101277 \times 10^{-2}$
$B_1 = 4.6697102 \times 10^{-1}$	$D_1 = 1.8324466 \times 10^{-1}$
$B_2 = 2.4255406 \times 10^{-1}$	$D_2 = 2.0166036 \times 10^{-1}$
$E_1 = 2.3807576$	$G_1 = 2.1235833$
$E_2 = 1.5931792$	$G_2 = 4.1670213$
$E_3 = 1.1618371 \times 10^{-1}$	$G_3 = 3.1925299$
$F_1 = 5.1533299$	$H_1 = 9.0551443$
$F_2 = 7.1425260$	$H_2 = 2.6649995 \times 10$
$F_3 = 1.9745056$	$H_3 = -0.21741801 \times 10$

Table A.3 Polynomial approximations of τ_4 as a function of τ_3

	GPA	GEV	GLO	GNO	PE3
A_0	0	0.10701	0.16667	0.12282	0.12240
A_1	0.20196	0.11090	--	--	--
A_2	0.95924	0.84838	0.83333	0.77518	0.30115
A_3	-0.20096	-0.06669	--	--	--
A_4	0.04061	0.00567	--	0.12279	0.95812
A_5	--	-0.04208	--	--	--
A_6	--	0.03763	--	-0.13638	-0.57488
A_7	--	--	--	--	--
A_8	--	--	--	0.11368	0.19383

Table A.4 Polynomial approximation of η_4 as a function of η_3

	GPA	GEV	GLO	GNO	PE3
A_0	-0.0020	0.01080	0.1585	0.1202	0.1232
A_1	0.2229	0.1131	--	--	-0.1224
A_2	0.8626	0.8178	0.8189	0.7929	1.3324
A_3	-0.0751	-0.0330	--	--	-2.3445
A_4	-0.0106	-0.0087	-0.0118	-0.0044	2.0100
A_5	-0.0013	0.0064	--	--	--
A_6	-0.0064	-0.0056	-0.0037	0.0064	--
A_7	0.0117	--	--	--	--
A_8	--	--	--	--	--

Table A.5 Polynomial approximation of τ_4^{η} as a function of τ_3^{η}

Methods		GPA	GEV	GLO
L_1-moment	A_0	0	0.0666	0.1167
	A_1	0.2083	0.1208	0.0187
	A_2	0.9115	0.8711	0.8859
	A_3	-0.1134	-0.0484	--
	A_4	0.0124	0.0084	--
L_2-moment	A_0	0	0.0483	0.0889
	A_1	0.2143	0.1357	0.0467
	A_2	0.8816	0.8710	0.8960
	A_3	-0.0754	-0.0317	--
	A_4	0.0059	0.0045	--
L_3-moment	A_0	0	0.0378	0.0714
	A_1	0.2187	0.1491	0.0714
	A_2	0.8813	0.8644	0.8929
	A_3	-0.0538	-0.0222	--
	A_4	0.0031	0.0026	--
L_4-moment	A_0	0	0.0310	0.0595
	A_1	0.2212	0.1602	0.0918
	A_2	0.8374	0.8564	0.8856
	A_3	-0.0665	-0.0163	--
	A_4	-0.0112	0.0017	--

Table A.6 Polynomial approximation of $\tau_4^{(1)}$ as a function of $\tau_3^{(1)}$

	GPA	GEV	GLO
A_0	0	0.0576	0.0833
A_1	0.1610	0.0942	0
A_2	0.9904	0.9183	0.9450
A_3	-0.1295	-0.0745	0
A_4	0.0184	0.0373	0

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