## Supplemental material

## E989 Collaboration

## $R_\mu'(T)$ with additional digits, for further elaborations

The  $\omega_a$ ,  $\tilde{\omega}_p'(T)$  and  $R_\mu'(T)$  measurements on the four E989 Run1 run groups and the combined Run 1  $R_\mu'(T)$  value are reported with extra numerical precision in order to reduce rounding uncertainties for further elaborations. The correlation between the four run groups  $R_\mu'(T)$  measurements is also reported.

	$\omega_a$	$\tilde{\omega}_p'(T)$	$R'_{\mu}(T)$
	229081.059(278) 229081.398(236) 229081.261(190) 229081.229(157)	61791871.21(7.08) 61791937.78(7.87) 61791845.45(7.71) 61792003.39(6.64)	0.00370730089(452) 0.00370730238(384) 0.00370730570(311) 0.00370729570(256)
Run1	, ,	, ,	0.00370730033(171)

## $R'_{\mu}(T)$ : correlation matrix for the Run 1 a, b, c, d measurements

$R'_{\mu}(T)$	1a	1b	1c	1d
1a	1.000	0.021	0.025	0.029
1b	0.021	1.000	0.030	0.033
1c	0.025	0.030	1.000	0.041
1d	0.029	0.033	0.041	1.000