

# Supplementary Material:

## A nonlinear causality estimator based on Non-Parametric Multiplicative Regression

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### 1 SUPPLEMENTARY TABLES AND FIGURES

**Supplementary Table 1.** Mean causality for Dataset 3. Results are from pairwise/univariate and conditional/multivariate estimates from linear GC, Kernel-GC and  $C_{NPMR}$

$GC$ pairwise		$x_1$	To: $x_2$	$x_3$	$GC$ conditional		$x_1$	To: $x_2$	$x_3$
From:	$x_1$	—	0	0	From:	$x_1$	—	0.004	0.003
	$x_2$	0	—	0.078		$x_2$	0.003	—	0.085
	$x_3$	0	0	—		$x_3$	0.003	0.003	—
$K - GC$ univariate		$x_1$	To: $x_2$	$x_3$	$K - GC$ multivariate		$x_1$	To: $x_2$	$x_3$
From:	$x_1$	—	0.192	0.152	From:	$x_1$	—	0.158	0.131
	$x_2$	0.001	—	0.097		$x_2$	0.001	—	0.110
	$x_3$	0.002	0.004	—		$x_3$	0.001	0.001	—
$C_{NPMR}$ pairwise		$x_1$	To: $x_2$	$x_3$	$C_{NPMR}$ conditional		$x_1$	To: $x_2$	$x_3$
From:	$x_1$	—	0.067	0.047	From:	$x_1$	—	0.063	0.049
	$x_2$	0.001	—	0.083		$x_2$	0	—	0.085
	$x_3$	0.002	0.001	—		$x_3$	0.002	0	—