

Errata: An efficient algorithm to identify strong velocity pulses in multi-component ground motions

Shrey K. Shahi and Jack W. Baker

An error in selecting the data used in the regression analysis by Shahi and Baker (2014) led to incorrect regression coefficients and model selection. With corrected data selection, the following are the correct results for the model.

Table 1 should be corrected as follows.

Parameters	Fault type	AIC
R, s	strike slip	265.03
R, \sqrt{s}	strike slip	263.32
$R, \ln(s)$	strike slip	264.33
R, s, θ	strike slip	261.02
R, \sqrt{s}, θ	strike slip	261.73
$R, \ln(s), \theta$	strike slip	263.51
R, d, ϕ	non strike-slip	613.39 337.41
R, d	non strike-slip	627.28 346.69
R, \sqrt{d}, ϕ	non strike-slip	607.10 329.82
R, d, ϕ , no intercept	non strike-slip	612.03 335.79
R, \sqrt{d}, ϕ , no intercept	non strike-slip	614.26 335.54

Equation 20 should be corrected as follows.

$$P(\text{directivity}|R, d, \phi, \text{non-strike-slip}) = \frac{1}{1 + e^{(2.118+0.129 \cdot R - 0.895 \cdot \sqrt{d} + 0.025 \cdot \phi)}} \quad (20)$$

Equation 24 should be corrected as follows.

$$P(\text{pulse}|R, d, \phi, \text{non-strike-slip}) = \frac{1}{1 + e^{(0.544+0.069 \cdot R - 0.259 \cdot \sqrt{d} + 0.019 \cdot \phi)}} \quad (24)$$

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References

Shahi, S. K., and J. W. Baker (2014). An Efficient Algorithm to Identify Strong-Velocity Pulses in Multicomponent Ground Motions, Bulletin of the Seismological Society of America **104**(5), 2456–2466, ISSN 0037-1106, 1943-3573, doi:10.1785/0120130191.