

## 0.1 Broadcast $R^2$ values

Algorithm	map-by core	map-by socket	map-by node
Default	—	—	—
Linear	0.929	0.986	0.916
Chain	0.839	0.895	0.959
Binary	0.534	0.321	0.421

**Table 1:**  $R^2$  values for the **broadcast** predictions with the point-to-point model.

Algorithm	map-by core	map-by socket	map-by node
Default	0.924	0.901	0.899
Linear	0.995	0.996	0.995
Chain	0.971	0.984	0.987
Binary	0.976	0.956	0.891

**Table 2:**  $R^2$  values for the **broadcast** predictions with the linear model.

## 0.2 Reduce $R^2$ values

Algorithm	map-by core	map-by socket	map-by node
Default	—	—	—
Linear	0	0	0
Chain	0.734	0.882	0.809
Binary	0	0	0

**Table 3:**  $R^2$  values for the **reduce** predictions with the point-to-point model.

Algorithm	map-by core	map-by socket	map-by node
Default	0.893	0.877	0.912
Linear	0.988	0.882	0.941
Chain	0.952	0.966	0.976
Binary	0.987	0.961	0.363

**Table 4:**  $R^2$  values for the **reduce** predictions with the linear model.