

**Supplemental Table S2.** Accuracy statistics for imputation of the European (EUR) specific variant genotypes from The 1000 Genomes Project using HRC panel as the reference. MAF range and mean/median/standard deviation (S.D) of genotype R2 are shown in the columns.

POPULATION	PROTOCOL	MAF	MEAN R2	MEDIAN	S.D.
EUR	Central	[0,0.001]	0.374936	0.1662	0.422141
EUR	Unphased (No augment)	[0,0.001]	0.310448	0	0.40146
EUR	Unphased (Augmented)	[0,0.001]	0.308705	0	0.400152
EUR	Phased (Augmented)	[0,0.001]	0.280831	0	0.391209
EUR	Phased (No augment)	[0,0.001]	0.270931	0	0.387035
EUR	RESHAPE	[0,0.001]	0.288262	0	0.395775
EUR	Central	(0.001,0.01]	0.500927	0.4996	0.28862
EUR	Unphased (No augment)	(0.001,0.01]	0.430114	0.4005	0.284271
EUR	Unphased (Augmented)	(0.001,0.01]	0.435406	0.4156	0.285804
EUR	Phased (Augmented)	(0.001,0.01]	0.419813	0.3989	0.28545
EUR	Phased (No augment)	(0.001,0.01]	0.406513	0.3748	0.284525
EUR	RESHAPE	(0.001,0.01]	0.437964	0.4279	0.289544
EUR	Central	(0.01,0.05]	0.624451	0.6332	0.226512
EUR	Unphased (No augment)	(0.01,0.05]	0.555158	0.5504	0.231254
EUR	Unphased (Augmented)	(0.01,0.05]	0.566967	0.5648	0.234693
EUR	Phased (Augmented)	(0.01,0.05]	0.556347	0.5518	0.233153
EUR	Phased (No augment)	(0.01,0.05]	0.531077	0.52455	0.229672
EUR	RESHAPE	(0.01,0.05]	0.57067	0.5702	0.236159
EUR	Central	(0.05,1]	0.904111	0.9668	0.14612
EUR	Unphased (No augment)	(0.05,1]	0.86281	0.9259	0.161607
EUR	Unphased (Augmented)	(0.05,1]	0.879533	0.9456	0.161177
EUR	Phased (Augmented)	(0.05,1]	0.875584	0.94325	0.163104
EUR	Phased (No augment)	(0.05,1]	0.844606	0.9151	0.175609
EUR	RESHAPE	(0.05,1]	0.885112	0.9542	0.160612