

**Table 1.** Major features of four commonly used power software for case-control association studies.

Software name	GPC	CaTS	PAWE 3D	PGA
URL	<a href="http://pngu.mgh.harvard.edu/~purchell/gpc/cc2.html">http://pngu.mgh.harvard.edu/~purchell/gpc/cc2.html</a>	<a href="http://www.sph.umich.edu/csg/abecasis/CaTS/">http://www.sph.umich.edu/csg/abecasis/CaTS/</a>	<a href="http://linkage.rockefeller.edu/pawe3d/pawe3dmain.html">http://linkage.rockefeller.edu/pawe3d/pawe3dmain.html</a>	<a href="http://dceg.cancer.gov/bb/tools/pga">http://dceg.cancer.gov/bb/tools/pga</a>
Web-based	√		√	
Downloadable GUI		√		√
Power and sample size calculations for SNP data	√	√	√	√
Power and sample size calculations for haplotype data				√
Power and sample size calculations for multi-stages studies		√		
Accounts for linkage disequilibrium between marker and causative allele			√	√
Calculate minimal detectable relative risk (MDRR)				√
Analyze power for a range of parameters			√	√
Has a graphical output		√	√	√
Power and sample size calculations for gene-gene interactions	√			
Accounts for phenotypic and genotypic errors			√	
Available as editable code				√