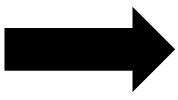


Pathway database  
(MSigDB, KEGG,  
etc.)



Pathway:

pathway <sub>1</sub>	gene <sub>1</sub>	gene <sub>2</sub>	...	gene <sub>n</sub>
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eQTL weights database  
(PrediXcan, TWAS,  
etc.)



Gene<sub>1</sub>:

Gene expression reference weights

	rs <sub>1</sub>	rs <sub>2</sub>	...	rs <sub>k1</sub>
W <sub>1</sub>	0	1.2	...	-0.5

Gene<sub>n</sub>:

Gene expression reference weights

	rs <sub>1</sub>	rs <sub>2</sub>	...	rs <sub>kn</sub>
W <sub>n</sub>	0.7	-1.2	...	-0.3



Summary statistics (Z statistics)

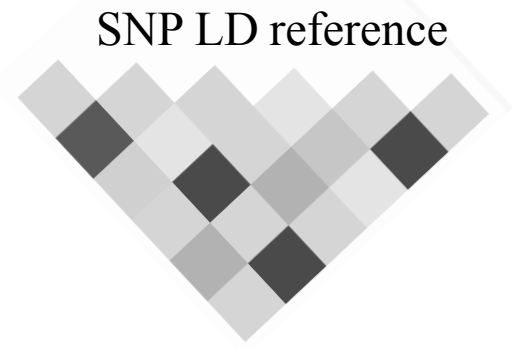
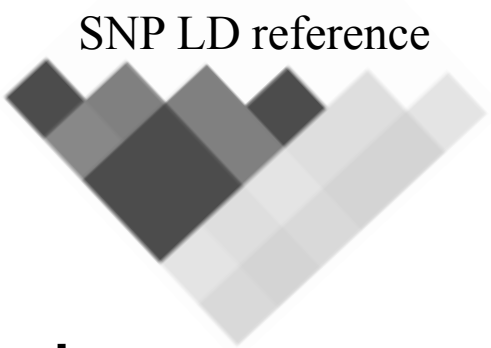
	rs <sub>1</sub>	rs <sub>2</sub>	...	rs <sub>k1</sub>
Z <sub>1</sub>	1.83	-0.54	...	-0.89

Summary statistics (Z statistics)

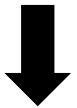
	rs <sub>1</sub>	rs <sub>2</sub>	...	rs <sub>kn</sub>
Z <sub>n</sub>	-2.13	-0.73	...	0.98



LD reference database  
(1000 Genomes, etc.)



Association testing: aSPUpath, Paster, DAVID, ...



*15 newly identified pathways with significant SCZ associations*