

# Single Nucleotide Polymorphism Spectral Decomposition (SNPSpD) - RESULTS

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Matrix of pairwise LD correlations for your markers:

	1	2	3	4	5	6	7	8	9	10
1	1	0.99	0.83	0.99	0.99	0.59	-0.61	0.61	0.61	0.58
2	0.99	1	0.82	0.98	0.98	0.58	-0.60	0.60	0.60	0.57
3	0.83	0.82	1	0.82	0.82	0.69	-0.71	0.71	0.71	0.69
4	0.99	0.98	0.82	1	1.00	0.61	-0.63	0.63	0.63	0.60
5	0.99	0.98	0.82	1.00	1	0.61	-0.63	0.63	0.63	0.60
6	0.59	0.58	0.69	0.61	0.61	1	-0.86	0.86	0.86	0.81
7	-0.61	-0.60	-0.71	-0.63	-0.63	-0.86	1	-1.00	-1.00	-0.94
8	0.61	0.60	0.71	0.63	0.63	0.86	-1.00	1	1.00	0.94
9	0.61	0.60	0.71	0.63	0.63	0.86	-1.00	1.00	1	0.94
10	0.58	0.57	0.69	0.60	0.60	0.81	-0.94	0.94	0.94	1

Original (total) number of marker loci (M):

10

For factor 1 to M, original eigenvalues associated with the LD correlation matrix:

1 7.8362  
2 1.6021  
3 0.2349  
4 0.2068  
5 0.0804  
6 0.0316  
7 0.0081  
8 0.0000  
9 0.0000  
10 0.0000

Variance of the observed eigenvalues:

6.0086

Effective number of independent marker loci [Meff]:

4.5922

Experiment-wide significance threshold required to keep Type I error rate at 5%:

0.0108879683845105

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SELECT A SUBSET OF SNPs WHILE OPTIMISING INFORMATION:

For factor 1 to M, Eigenvalues and Proportion of Variance, after Varimax Rotation:

1 4.5165 0.4516  
2 4.4628 0.4463  
3 0.4855 0.0486  
4 0.4091 0.0409  
5 0.0862 0.0086  
6 0.0299 0.0030  
7 0.0101 0.0010  
8 0.0000 0.0000  
9 0.0000 0.0000  
10 0.0000 0.0000

Principal component coefficients for varimax-rotated matrix:

- Columns represent factors (principal components) 1 to M
- Rows represent SNP 1 to M

	SNP	1	2	3	4	5	6	7	8	9	10
1	t-5991c	-0.2971	-0.9392	-0.1283	0.0796	-0.0085	0.0087	0.0815	0	0	0
2	a-5466c	-0.2897	-0.9360	-0.1207	0.0788	-0.0064	0.1385	-0.0016	0	0	0
3	t-3892c	-0.4460	-0.6503	-0.6026	0.1220	-0.0156	0.0015	0.0003	0	0	0
4	a-240t	-0.3243	-0.9323	-0.0959	0.0963	-0.0135	-0.0729	-0.0413	0	0	0
5	t-93c	-0.3243	-0.9323	-0.0959	0.0963	-0.0135	-0.0729	-0.0413	0	0	0
6	t-1237c	-0.7349	-0.3303	-0.1333	0.5770	-0.0056	0.0006	0.0000	0	0	0
7	g2215a	0.9282	0.3359	0.1137	-0.0970	-0.0572	0.0000	0.0004	0	0	0
8	i/d	-0.9282	-0.3359	-0.1137	0.0970	0.0572	0.0000	-0.0004	0	0	0
9	g2350a	-0.9282	-0.3359	-0.1137	0.0970	0.0572	0.0000	-0.0004	0	0	0
10	4656ct	-0.9001	-0.3095	-0.1282	0.0437	-0.2750	0.0001	0.0000	0	0	0

Factor "loadings" after varimax rotation:

- Columns represent factors 1 to M
- Rows represent SNP 1 to M
- SNPs contributing the MOST to each rotated factor are designated by a "1"

	SNP	1	2	3	4	5	6	7	8	9	10
1	t-5991c	0	1	0	0	0	0	1	0	0	0
2	a-5466c	0	0	0	0	0	1	0	0	0	0
3	t-3892c	0	0	1	0	0	0	0	0	0	0
4	a-240t	0	0	0	0	0	0	0	0	0	0
5	t-93c	0	0	0	0	0	0	0	0	0	0
6	t-1237c	0	0	0	1	0	0	0	0	0	0
7	g2215a	1	0	0	0	0	0	0	0	0	0
8	i/d	1	0	0	0	0	0	0	0	0	0
9	g2350a	1	0	0	0	0	0	0	0	0	0
10	4656ct	0	0	0	0	1	0	0	0	0	0

=> Select one SNP to represent either:

- each factor,
- the factors with the largest Meff eigenvalues, or
- the factors explaining a selected proportion of variance.

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**If there are no results between the above two lines there must be a problem with your "ldmax" input files => please re-check. However, if you are 100% confident that your .pre and .map files are correct but cannot get any results, please email me, detailing your problem.**

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