

Torus Glued Eigenfunctions of the Graph Laplacian for $M = 2$

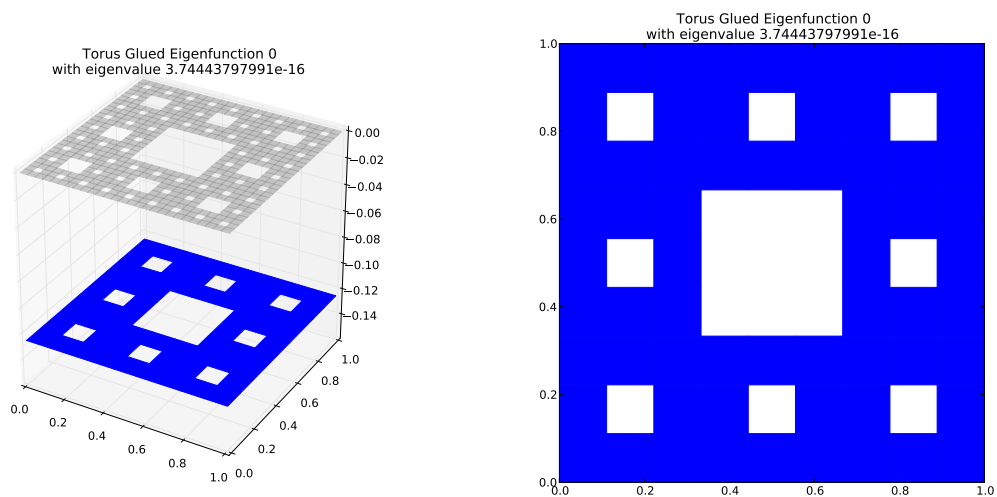
SPUR 2016

August 12, 2016

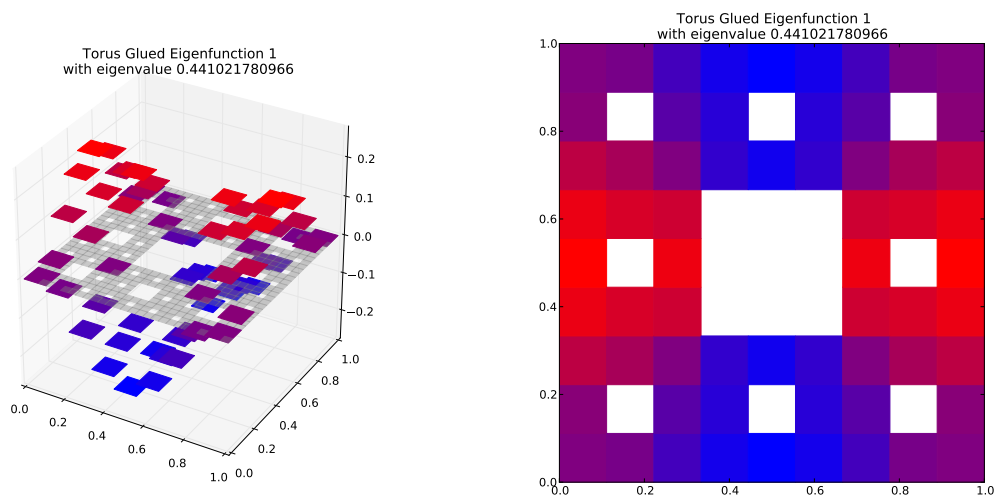
Eigenvalues:

0. 3.74443797991e-16	22. 3.23477240994	44. 5.12872509323
1. 0.441021780966	23. 3.26794919243	45. 5.16346190258
2. 0.690590970621	24. 3.26794919243	46. 5.28160345322
3. 0.690590970621	25. 3.3683025148	47. 5.57257068024
4. 0.758799842469	26. 3.3683025148	48. 5.57257068024
5. 1.4269914264	27. 3.65098985108	49. 5.94691370594
6. 1.48275402202	28. 3.65987463421	50. 6.0
7. 1.48275402202	29. 3.73118391612	51. 6.00016431446
8. 1.49838811955	30. 3.73118391612	52. 6.00016431446
9. 1.56922273818	31. 3.84320023286	53. 6.06357579016
10. 1.87462446692	32. 3.84320023286	54. 6.44874903299
11. 1.88363690629	33. 3.90641157088	55. 6.73205080757
12. 1.88363690629	34. 4.0	56. 6.73205080757
13. 2.0	35. 4.25137304813	57. 7.13083618949
14. 2.32933565713	36. 4.45257105461	58. 7.13083618949
15. 2.41553374839	37. 4.65856481536	59. 7.23467751094
16. 2.41553374839	38. 4.65856481536	60. 7.27755947968
17. 2.53542968744	39. 4.69919119578	61. 7.27755947968
18. 2.78765403799	40. 4.79614752785	62. 7.32628493748
19. 3.03114608259	41. 4.91395612707	63. 7.35794927845
20. 3.03114608259	42. 4.91395612707	
21. 3.14909759224	43. 5.02616265324	

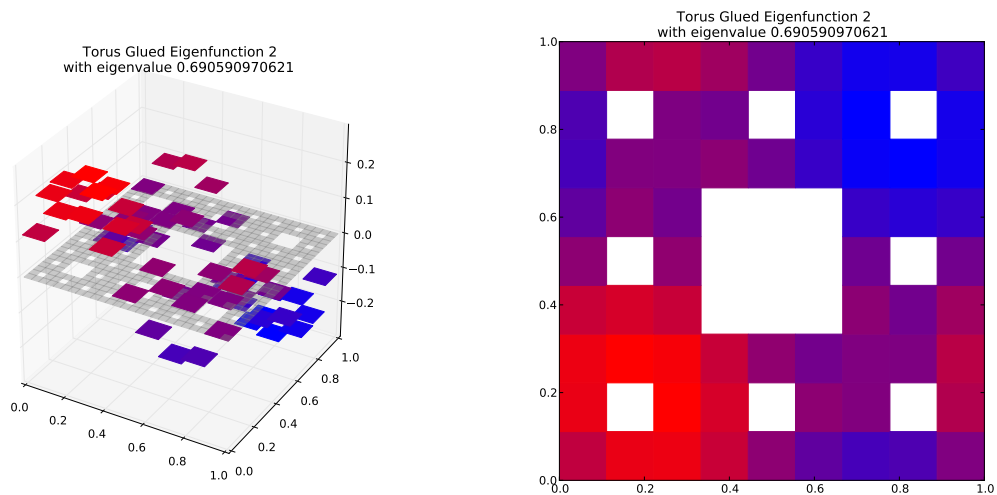
Eigenfunction 0 with eigenvalue $3.74443797991e-16$



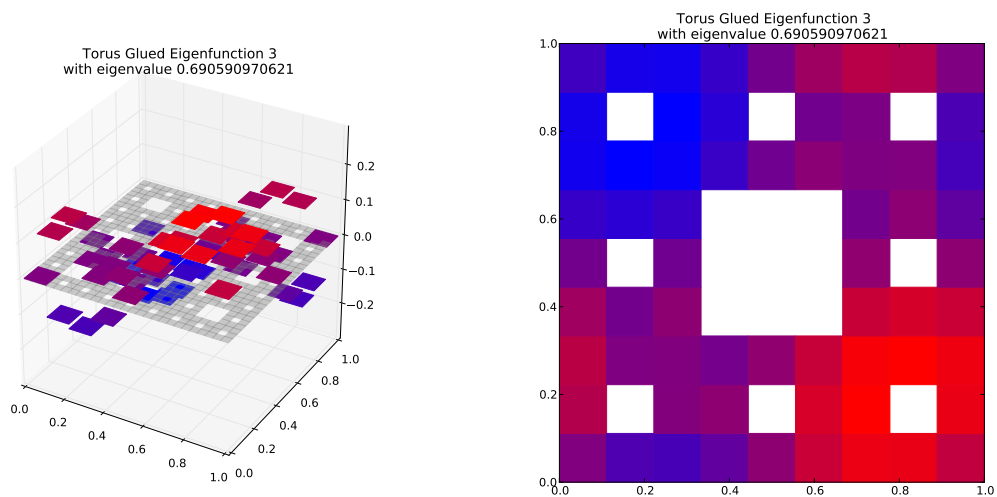
Eigenfunction 1 with eigenvalue 0.441021780966



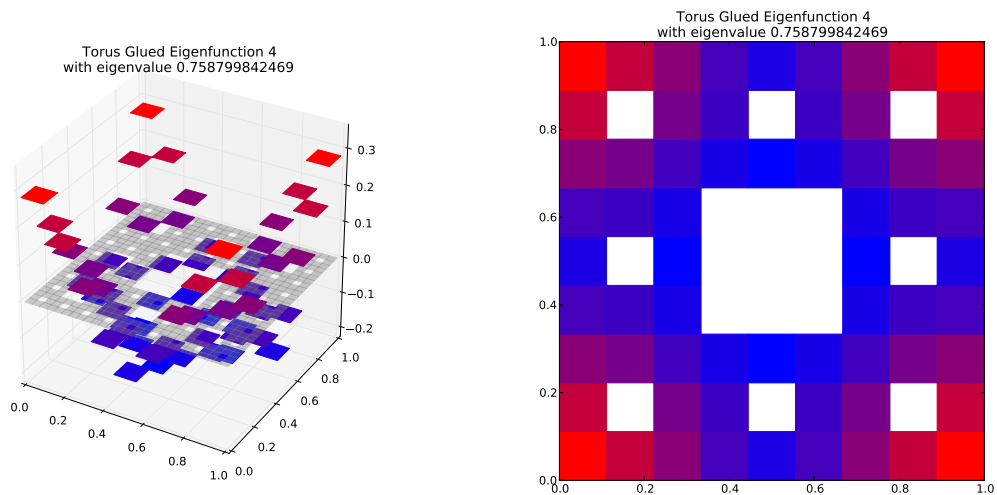
Eigenfunction 2 with eigenvalue 0.690590970621



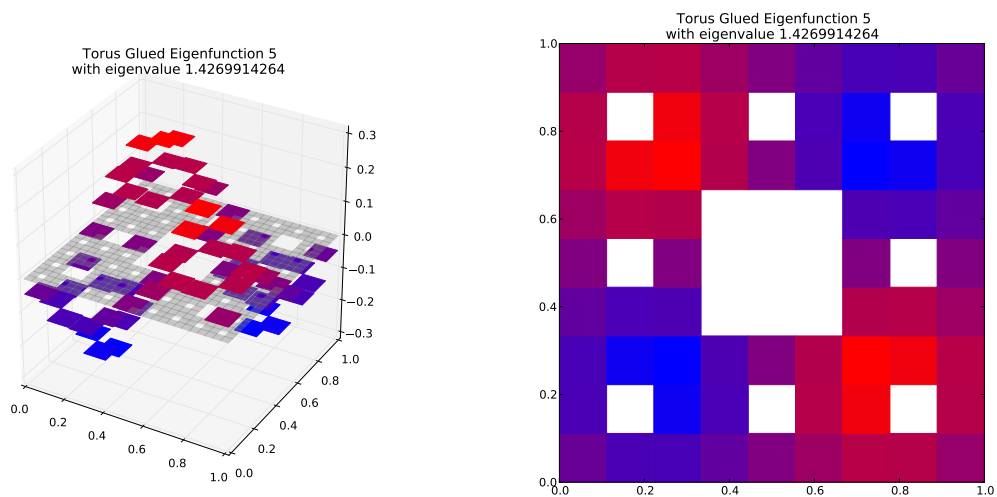
Eigenfunction 3 with eigenvalue 0.690590970621



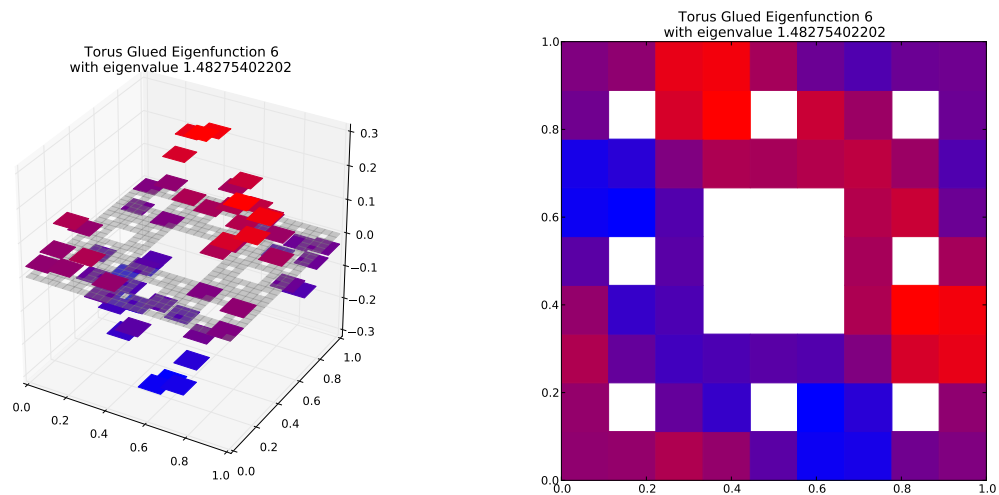
Eigenfunction 4 with eigenvalue 0.758799842469



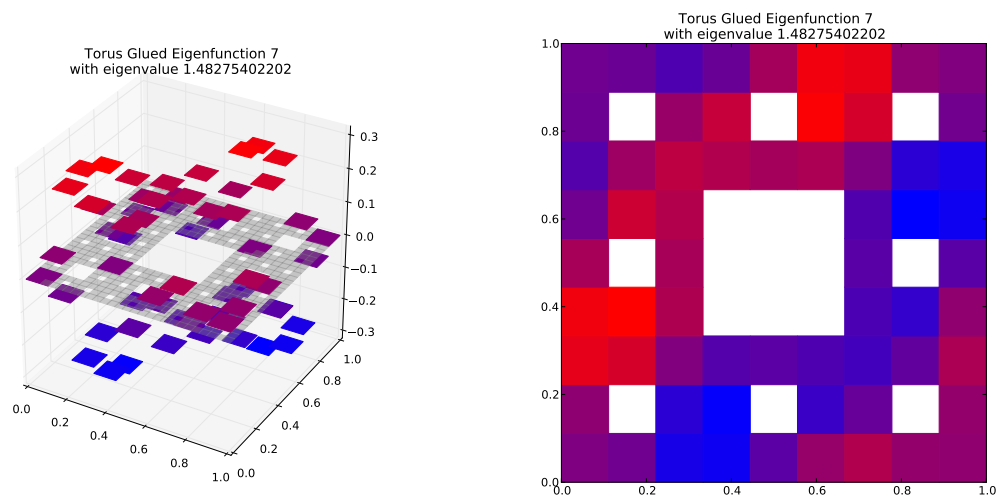
Eigenfunction 5 with eigenvalue 1.4269914264



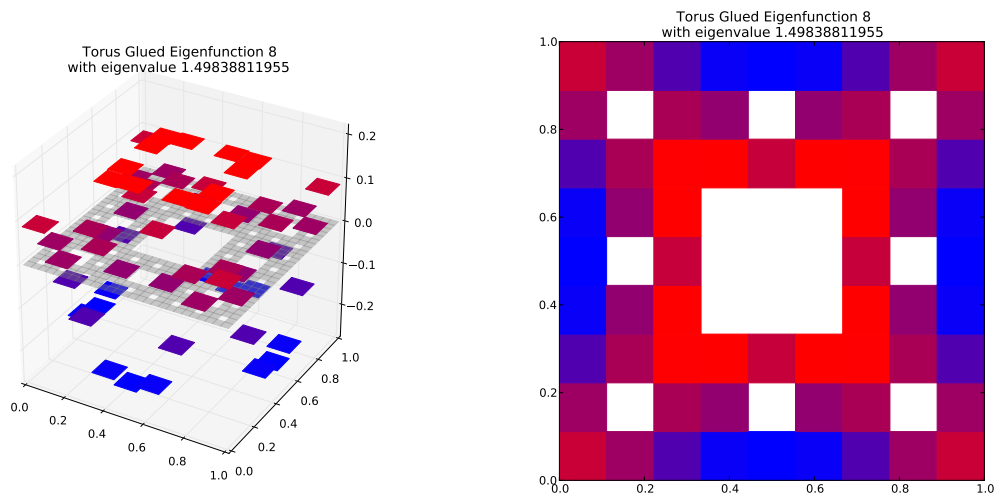
Eigenfunction 6 with eigenvalue 1.48275402202



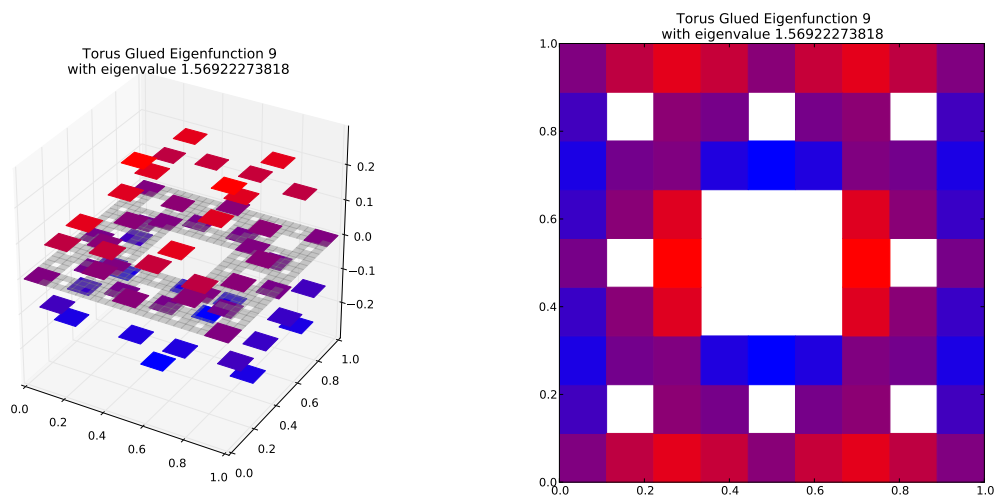
Eigenfunction 7 with eigenvalue 1.48275402202



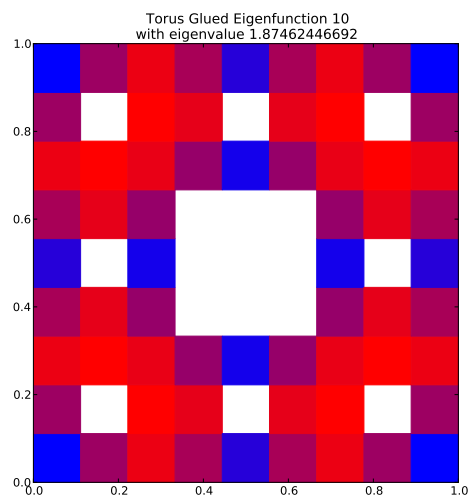
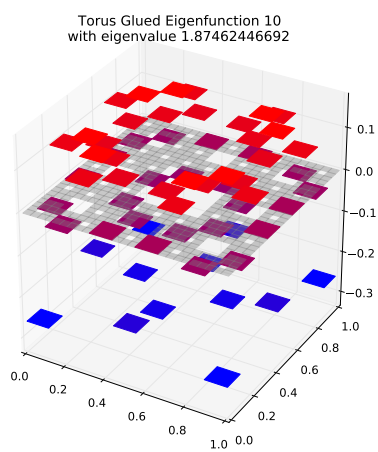
Eigenfunction 8 with eigenvalue 1.49838811955



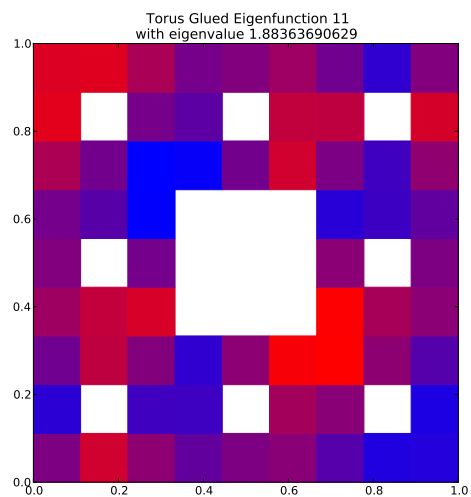
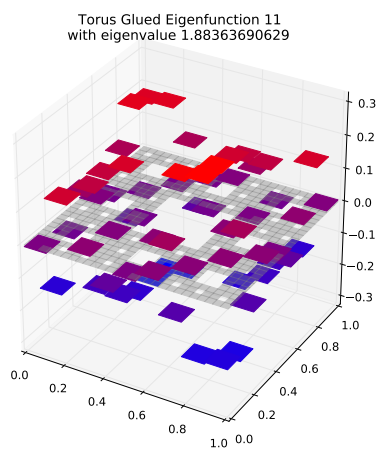
Eigenfunction 9 with eigenvalue 1.56922273818



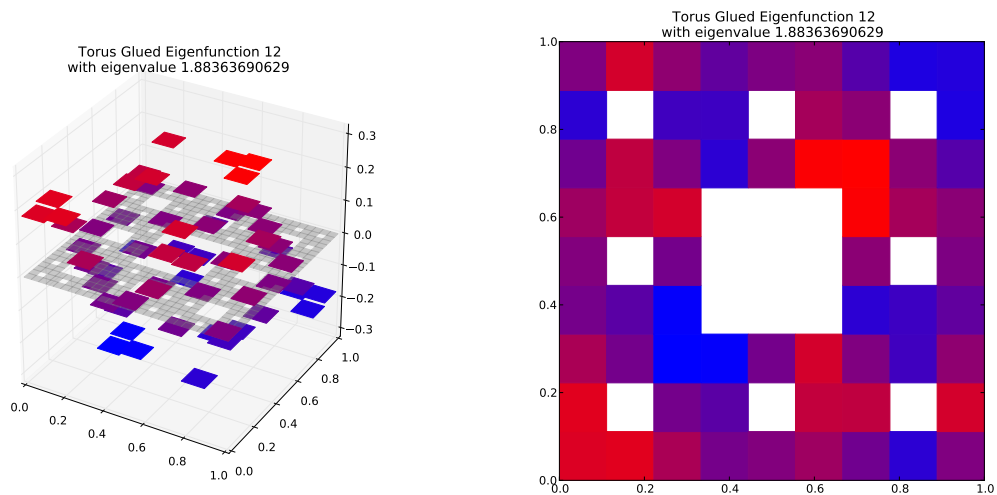
Eigenfunction 10 with eigenvalue 1.87462446692



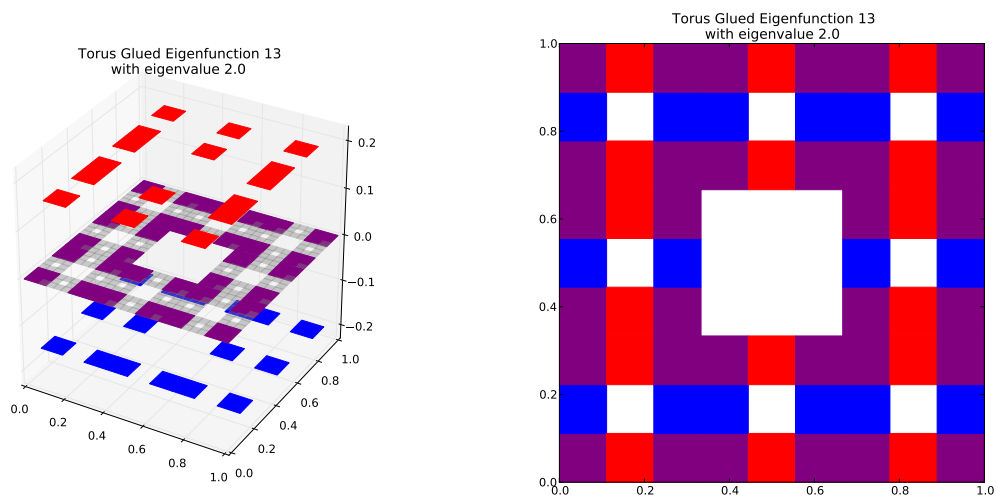
Eigenfunction 11 with eigenvalue 1.88363690629



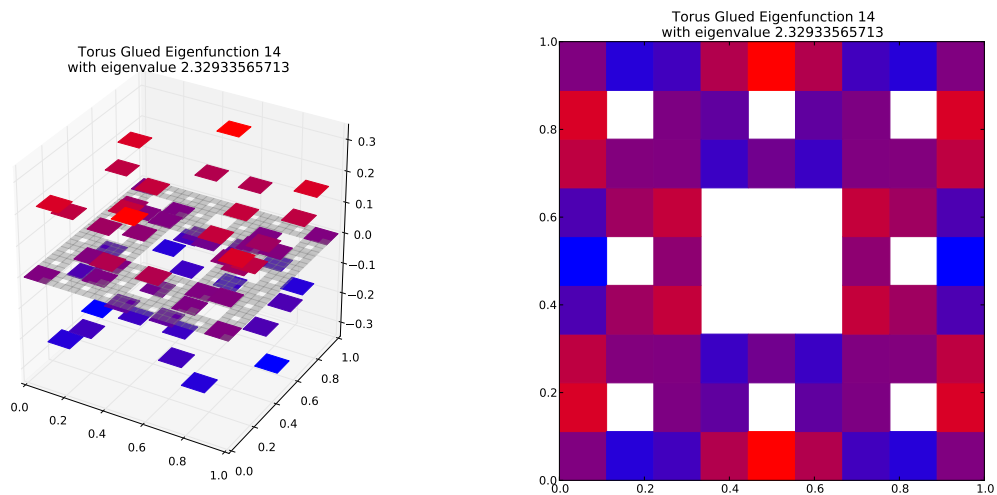
Eigenfunction 12 with eigenvalue 1.88363690629



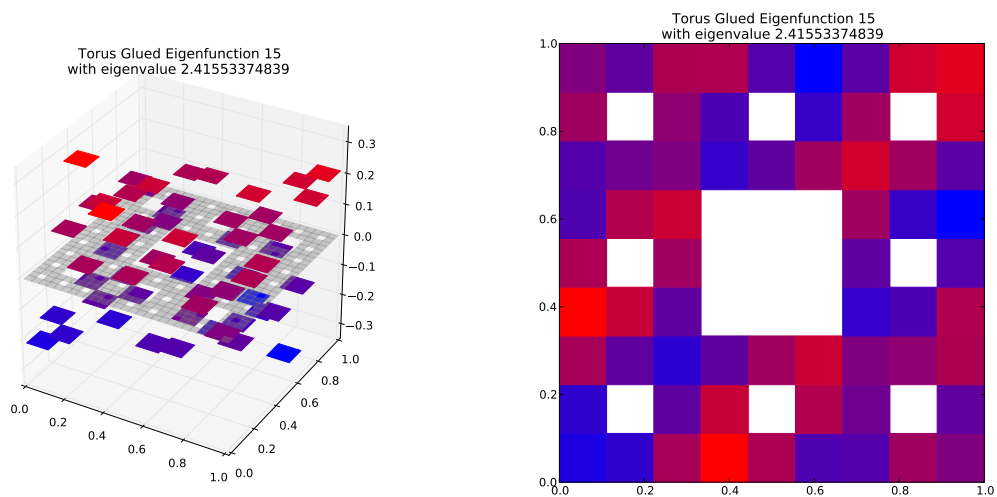
Eigenfunction 13 with eigenvalue 2.0



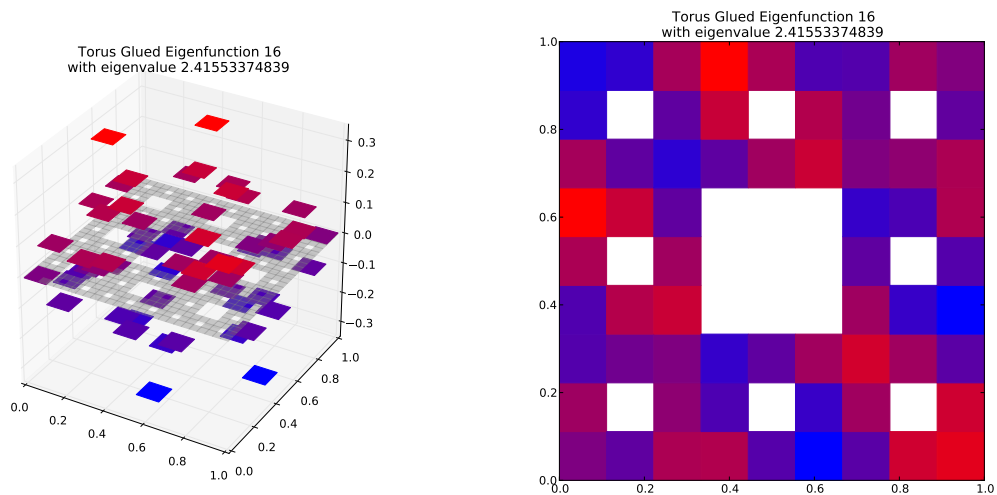
Eigenfunction 14 with eigenvalue 2.32933565713



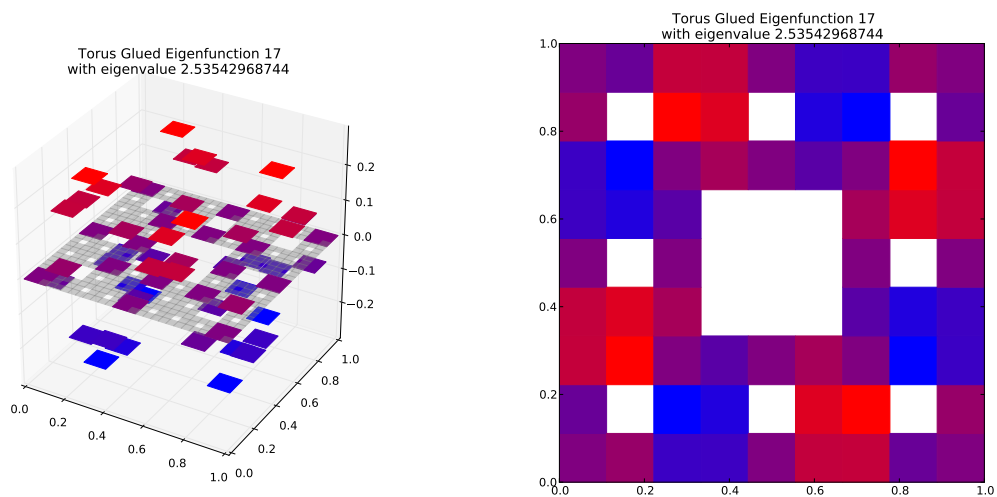
Eigenfunction 15 with eigenvalue 2.41553374839



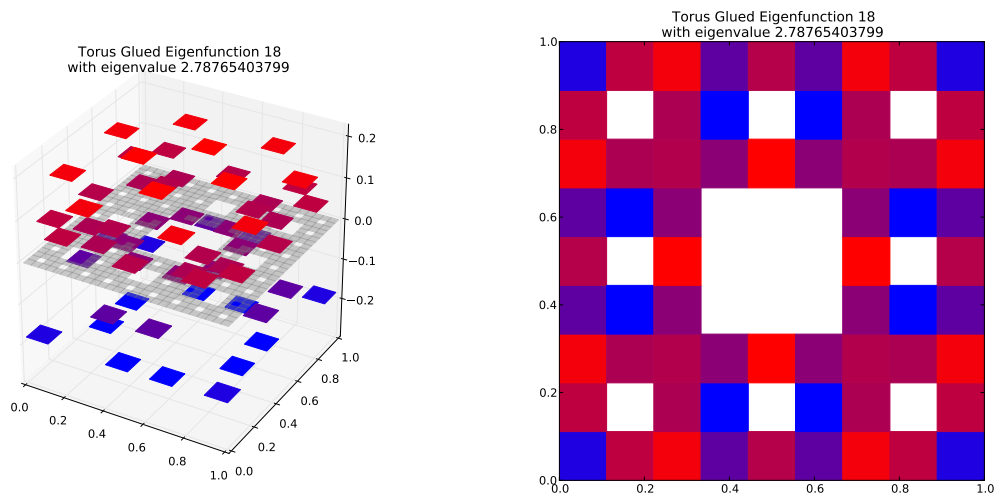
Eigenfunction 16 with eigenvalue 2.41553374839



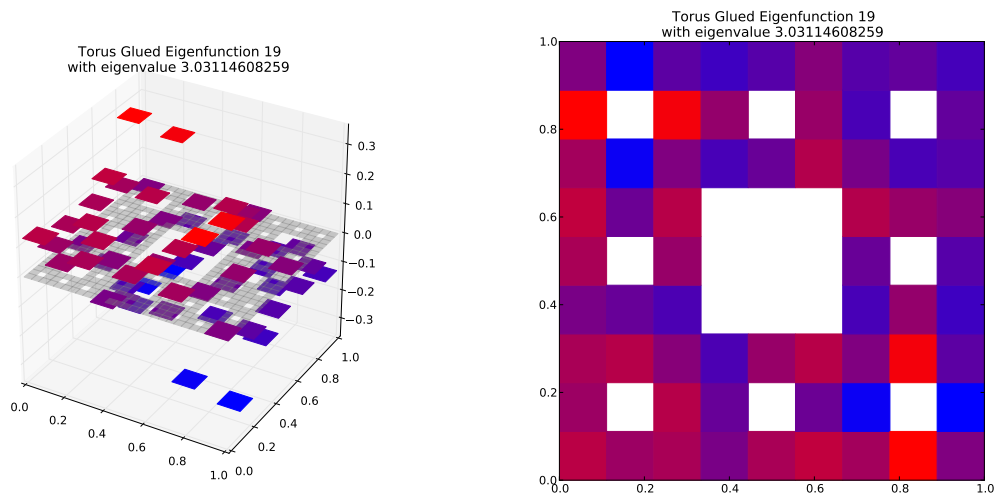
Eigenfunction 17 with eigenvalue 2.53542968744



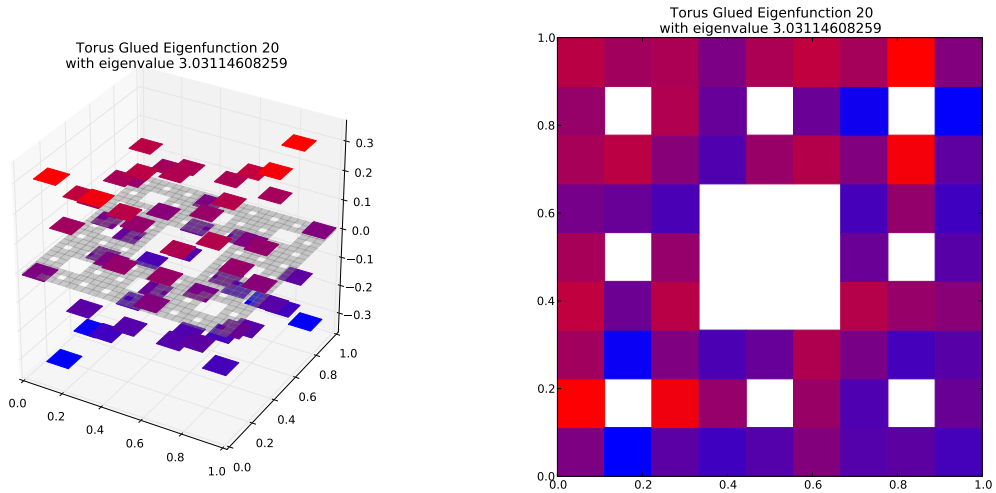
Eigenfunction 18 with eigenvalue 2.78765403799



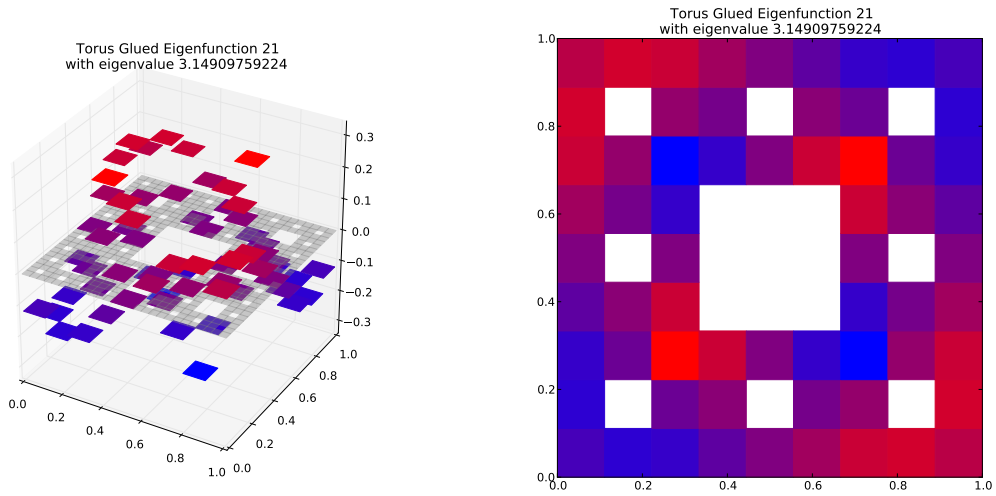
Eigenfunction 19 with eigenvalue 3.03114608259



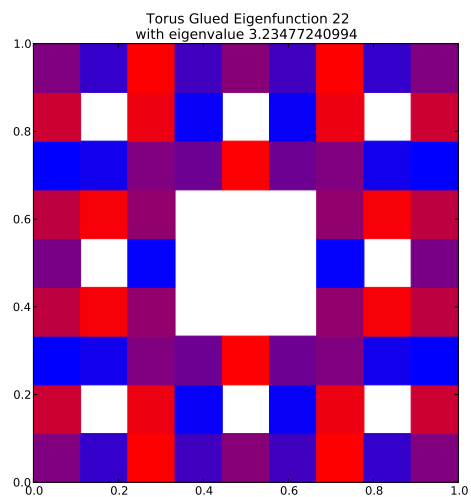
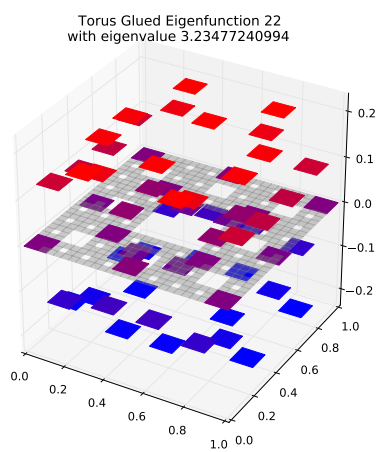
Eigenfunction 20 with eigenvalue 3.03114608259



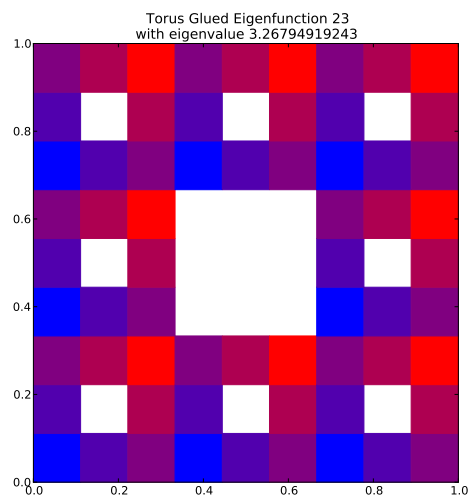
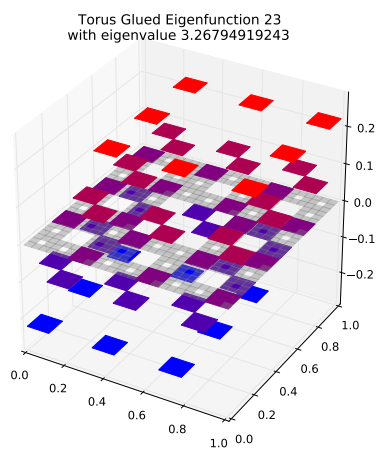
Eigenfunction 21 with eigenvalue 3.14909759224



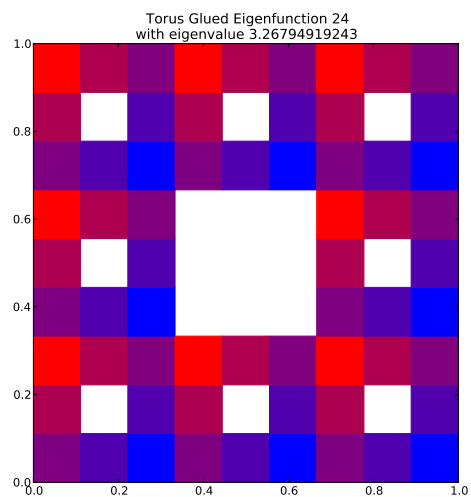
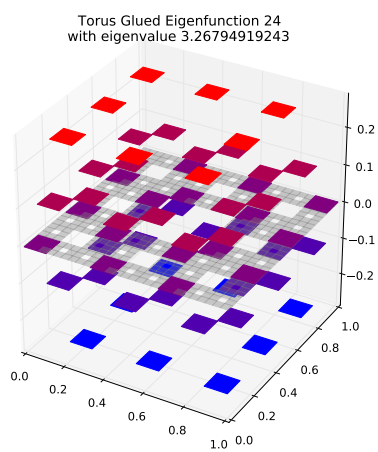
Eigenfunction 22 with eigenvalue 3.23477240994



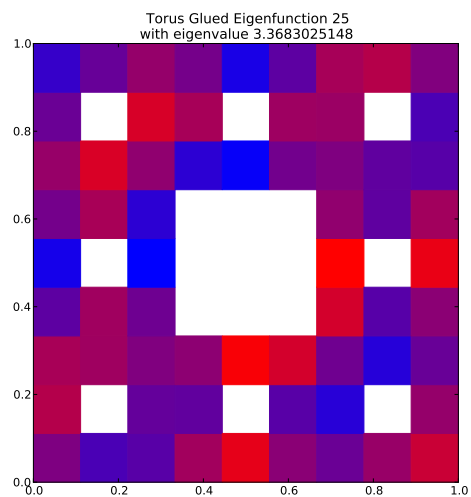
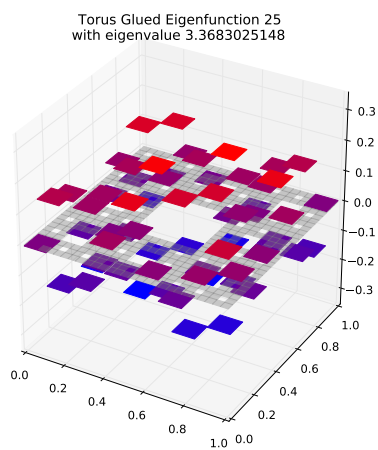
Eigenfunction 23 with eigenvalue 3.26794919243



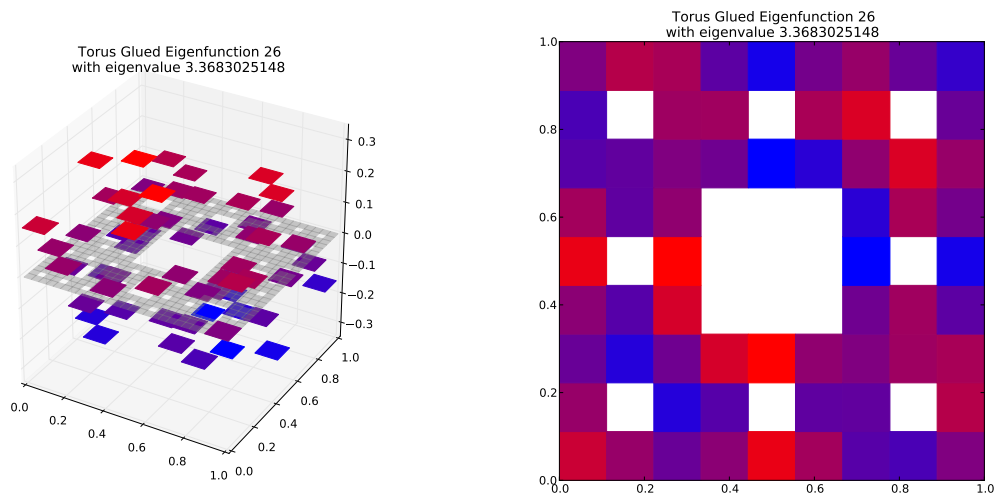
Eigenfunction 24 with eigenvalue 3.26794919243



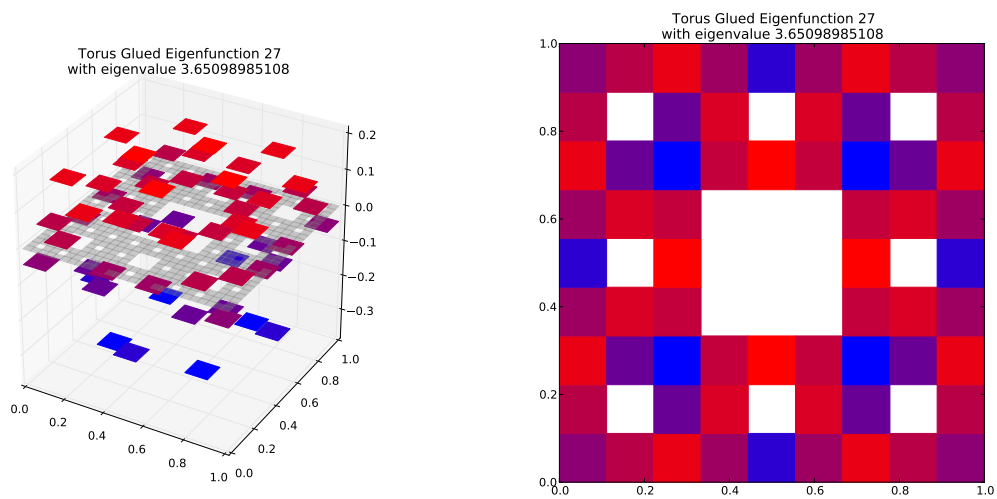
Eigenfunction 25 with eigenvalue 3.3683025148



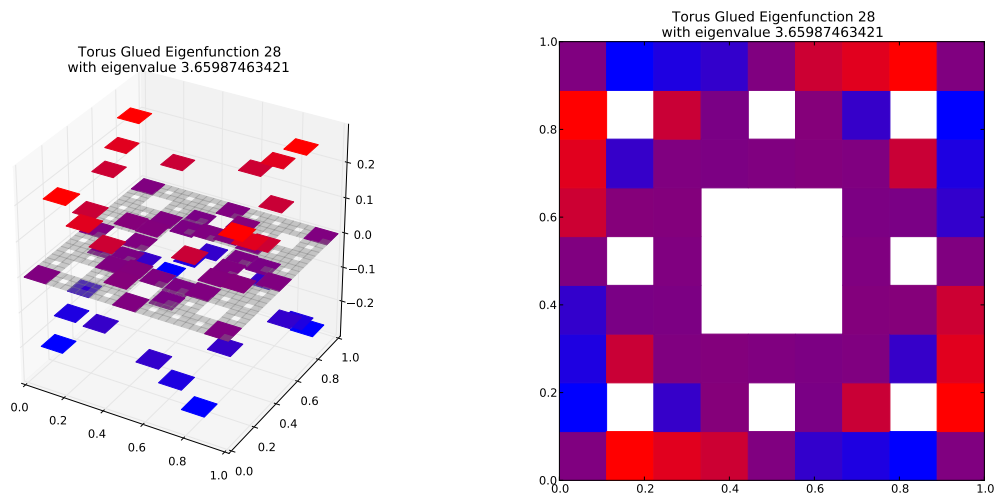
Eigenfunction 26 with eigenvalue 3.3683025148



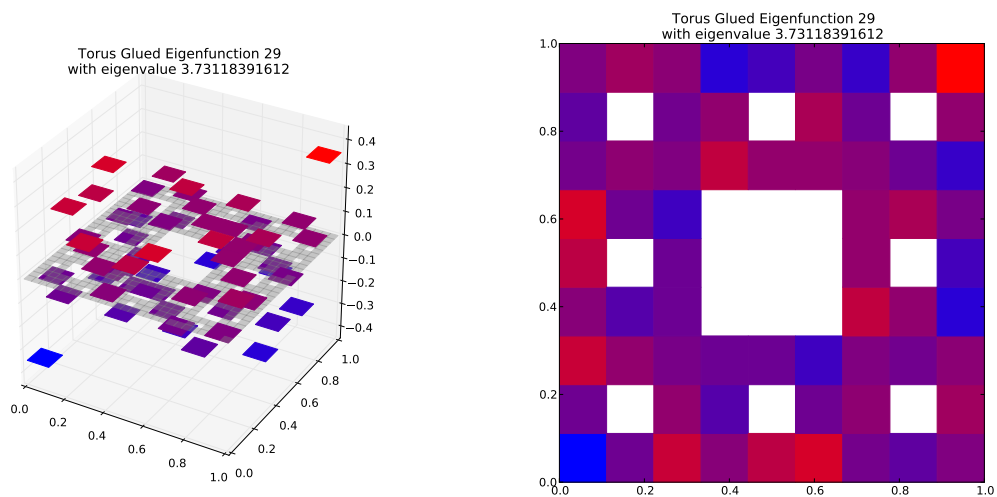
Eigenfunction 27 with eigenvalue 3.65098985108



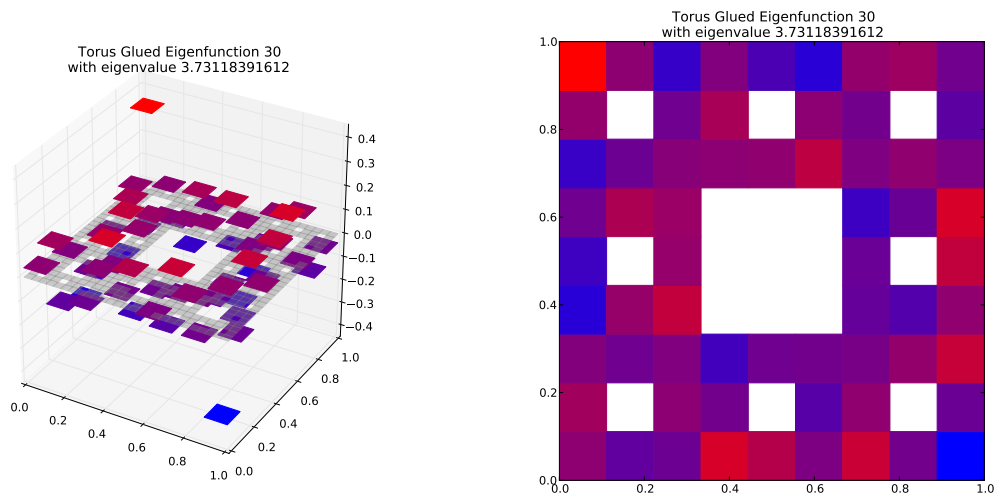
Eigenfunction 28 with eigenvalue 3.65987463421



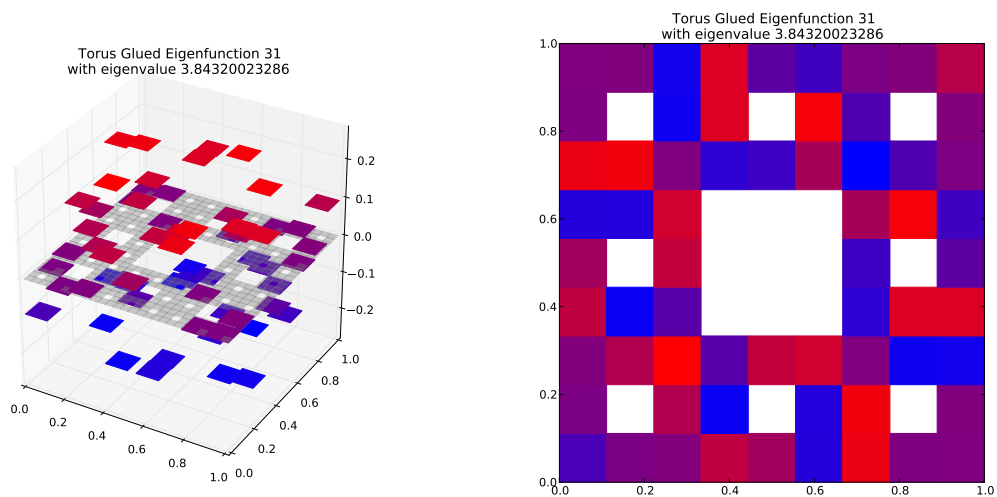
Eigenfunction 29 with eigenvalue 3.73118391612



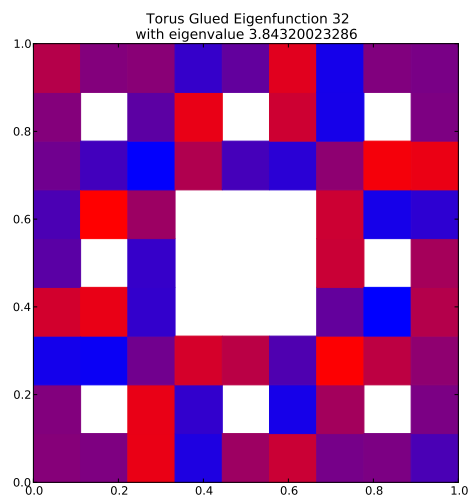
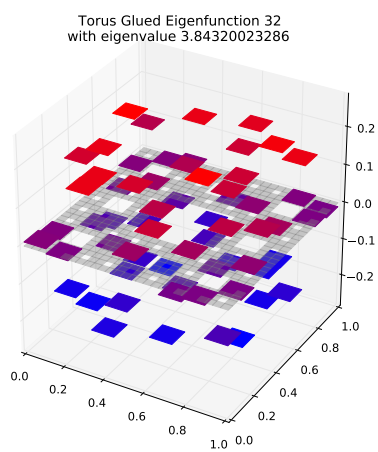
Eigenfunction 30 with eigenvalue 3.73118391612



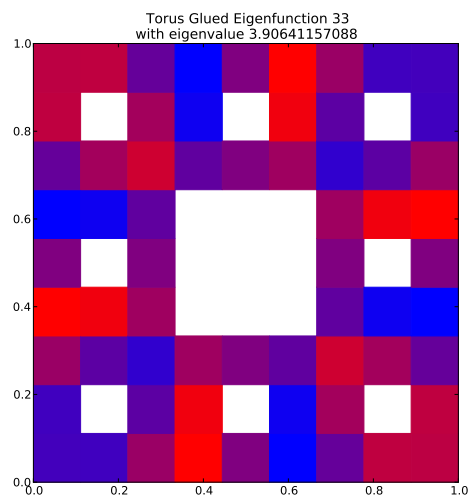
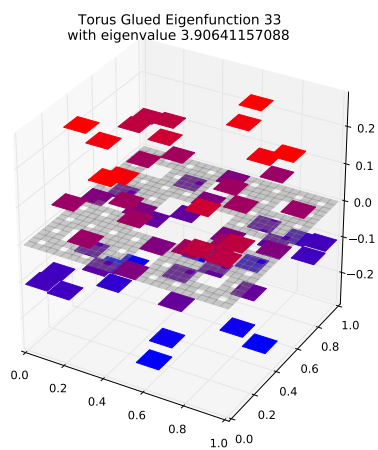
Eigenfunction 31 with eigenvalue 3.84320023286



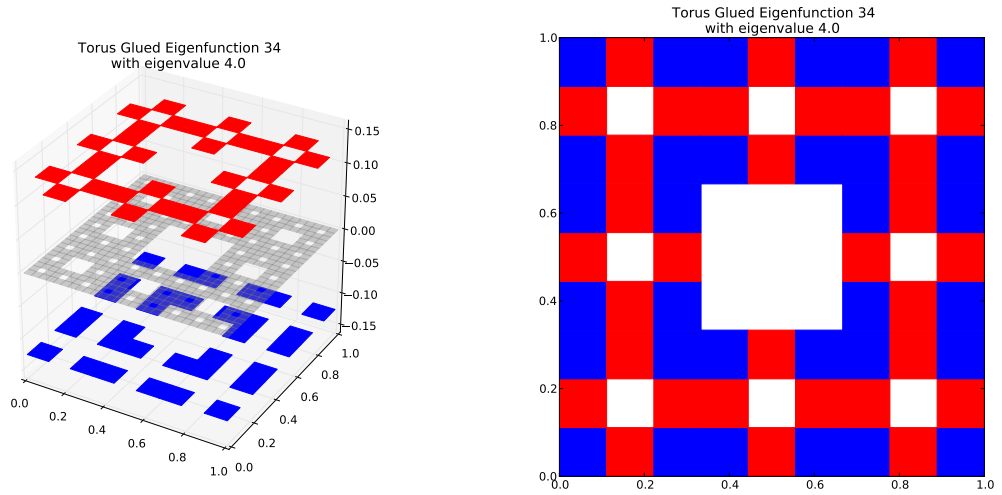
Eigenfunction 32 with eigenvalue 3.84320023286



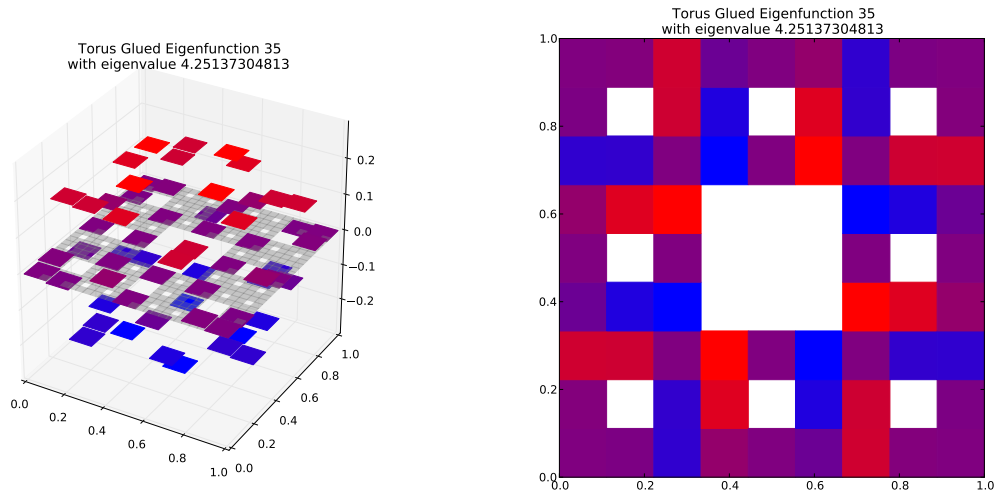
Eigenfunction 33 with eigenvalue 3.90641157088



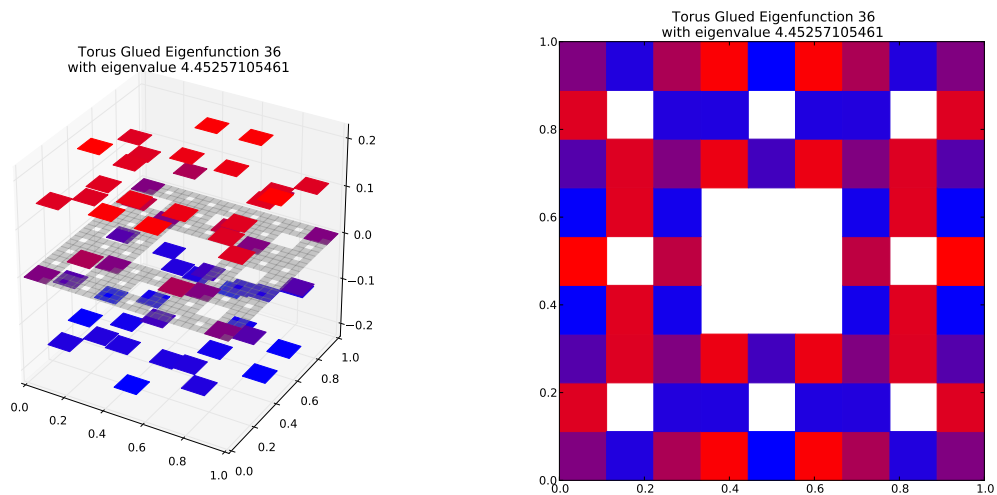
Eigenfunction 34 with eigenvalue 4.0



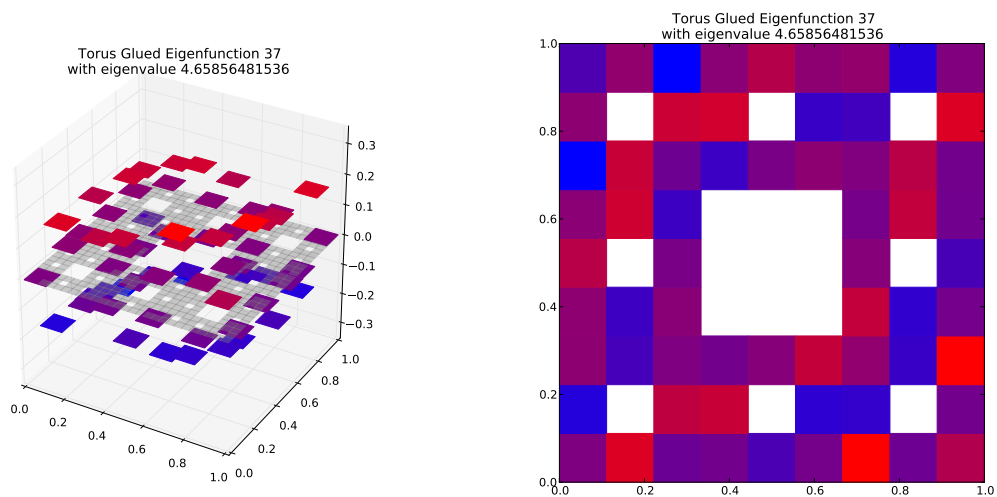
Eigenfunction 35 with eigenvalue 4.25137304813



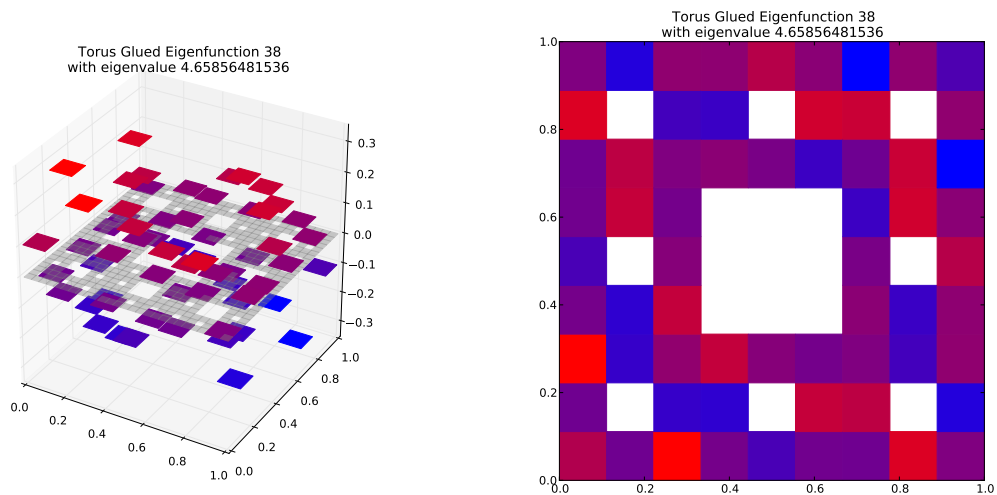
Eigenfunction 36 with eigenvalue 4.45257105461



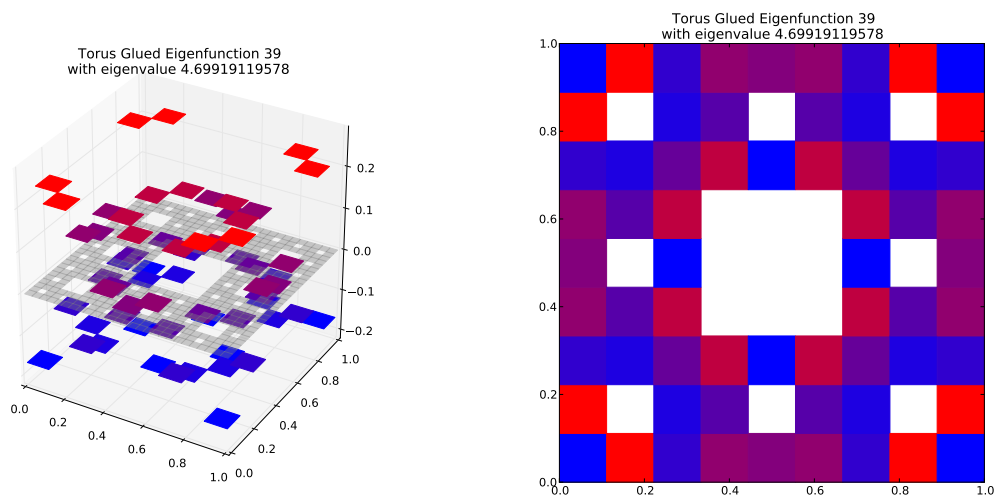
Eigenfunction 37 with eigenvalue 4.65856481536



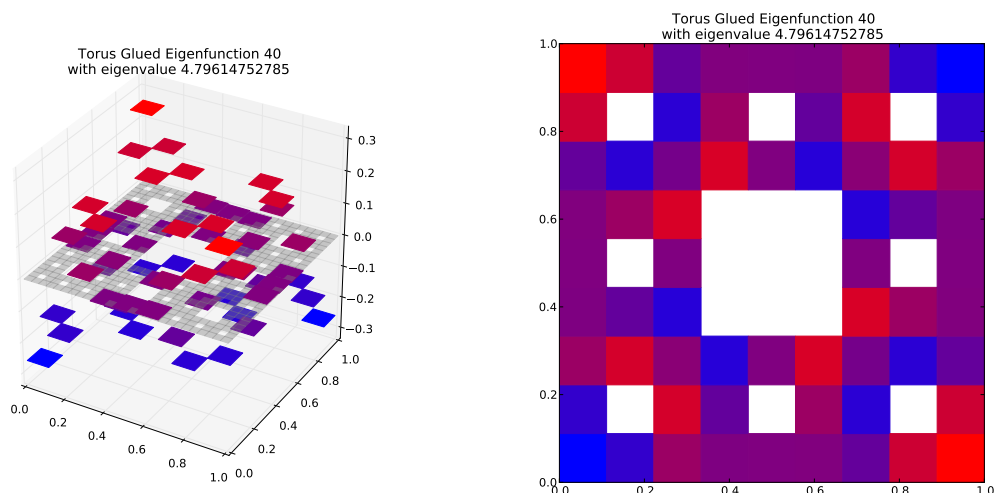
Eigenfunction 38 with eigenvalue 4.65856481536



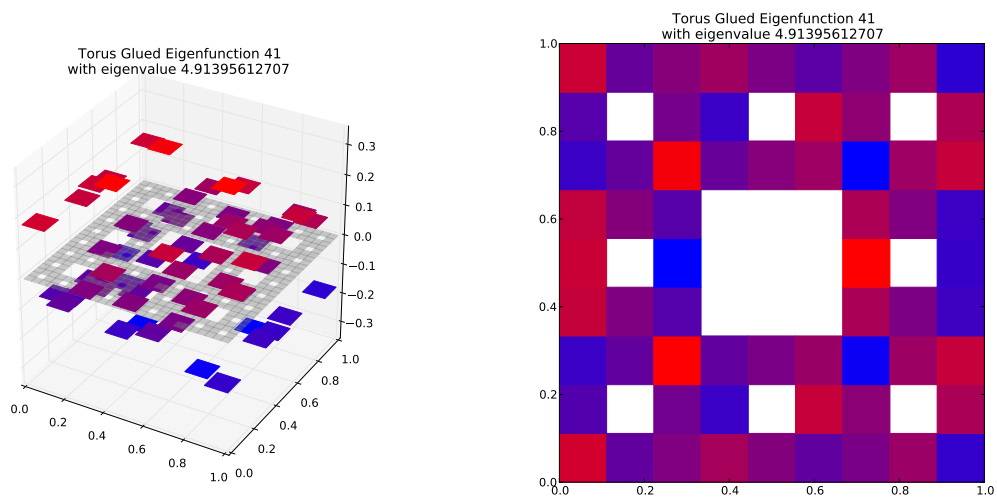
Eigenfunction 39 with eigenvalue 4.69919119578



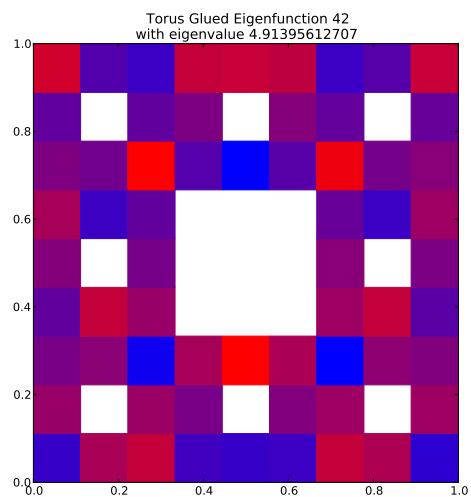
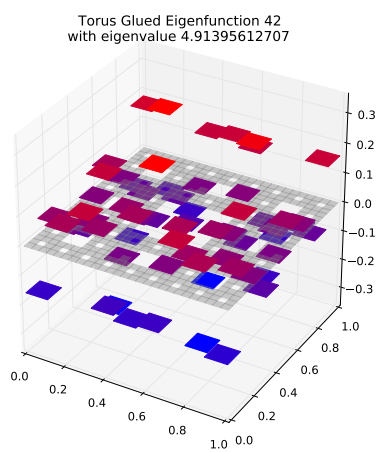
Eigenfunction 40 with eigenvalue 4.79614752785



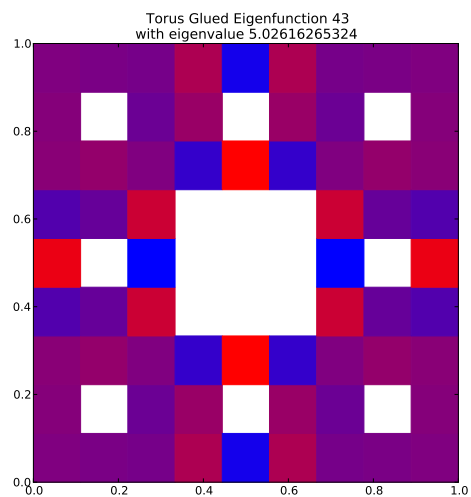
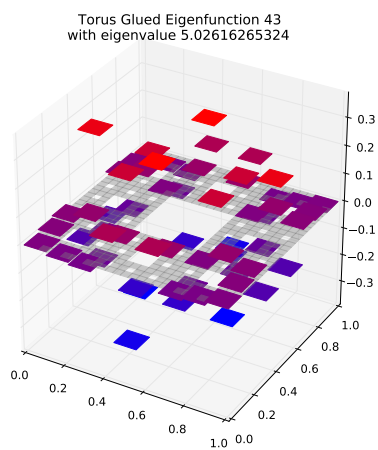
Eigenfunction 41 with eigenvalue 4.91395612707



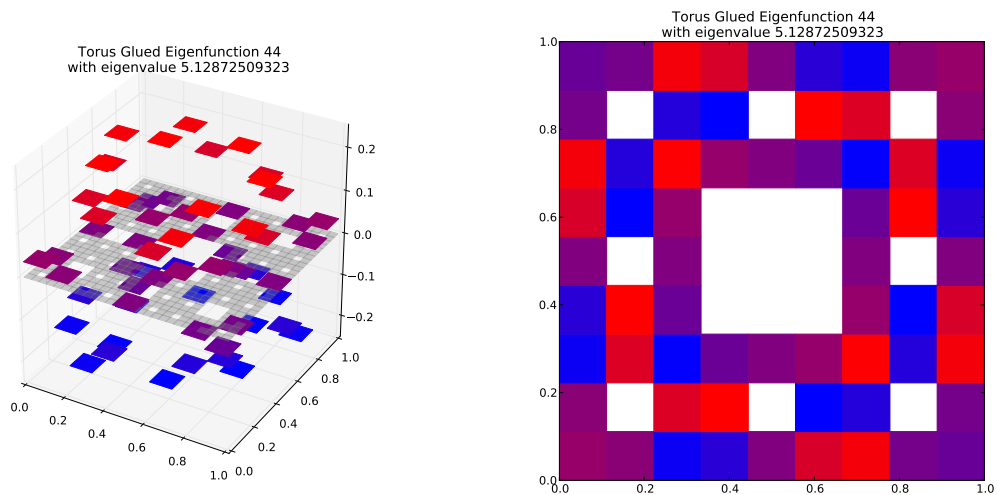
Eigenfunction 42 with eigenvalue 4.91395612707



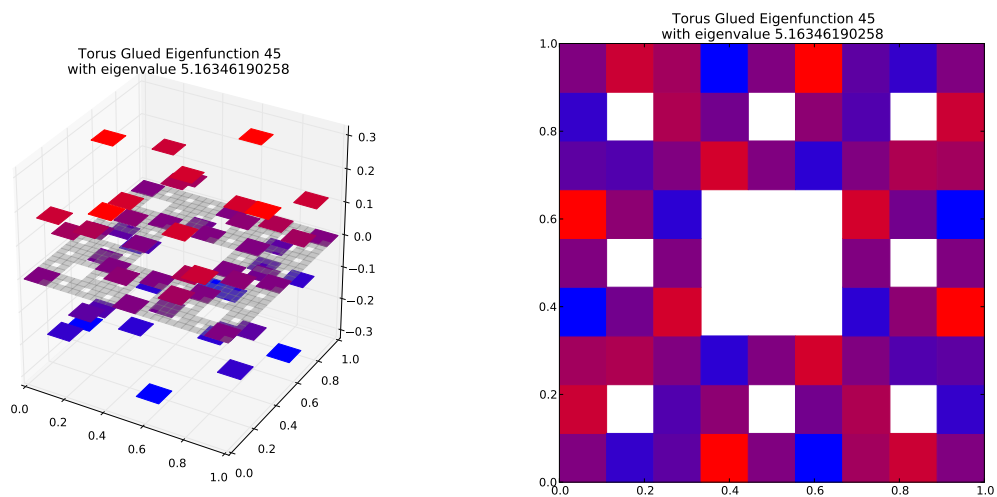
Eigenfunction 43 with eigenvalue 5.02616265324



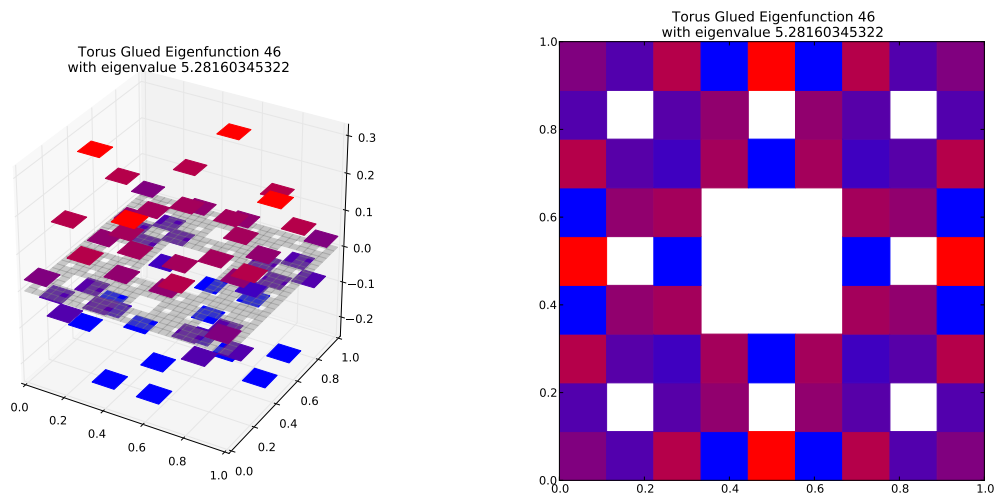
Eigenfunction 44 with eigenvalue 5.12872509323



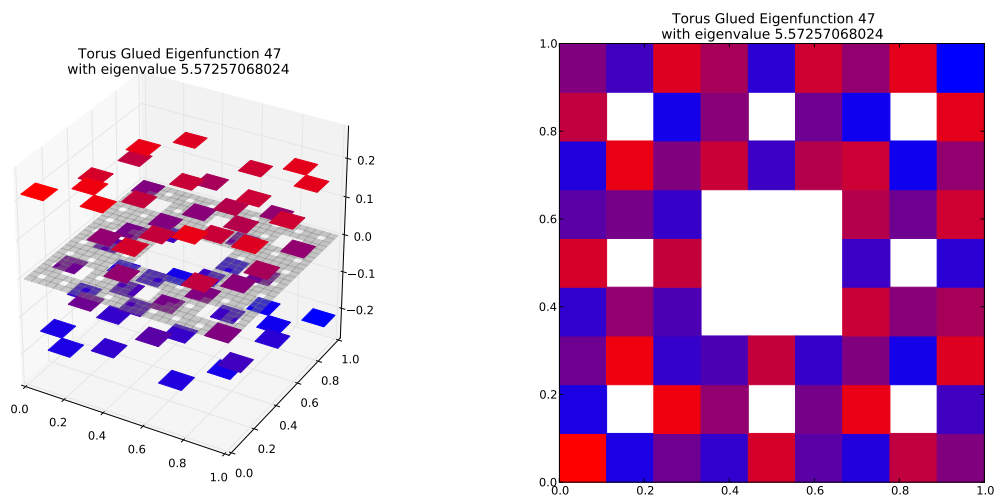
Eigenfunction 45 with eigenvalue 5.16346190258



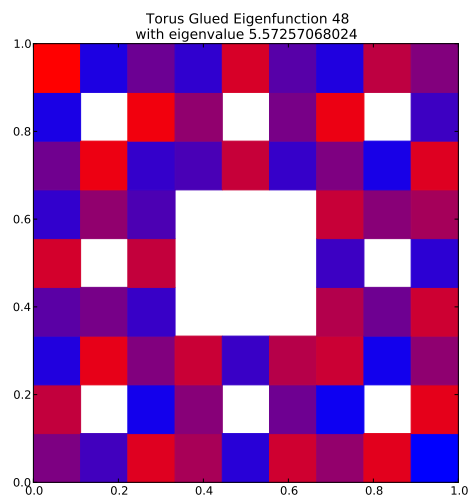
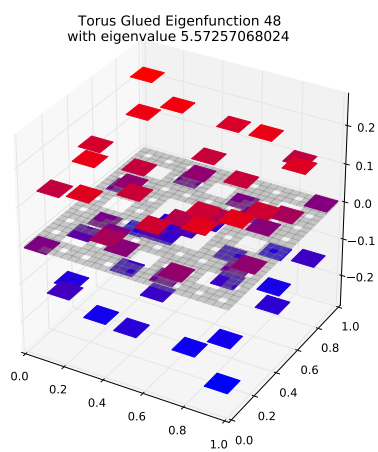
Eigenfunction 46 with eigenvalue 5.28160345322



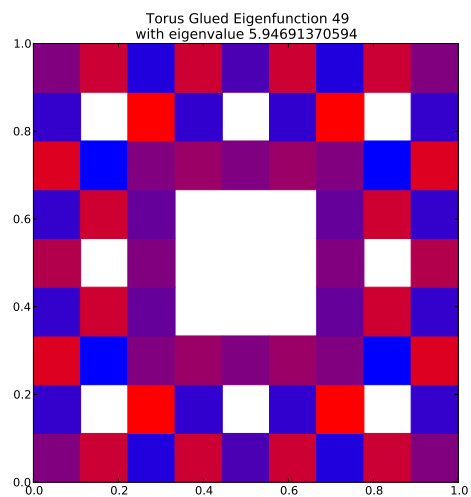
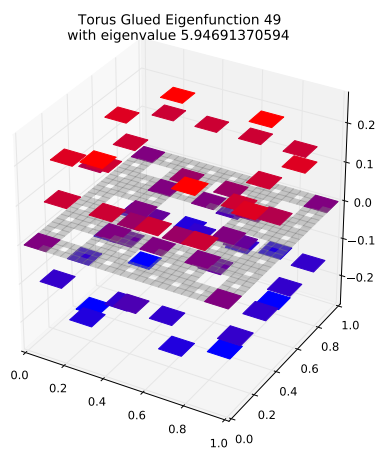
Eigenfunction 47 with eigenvalue 5.57257068024



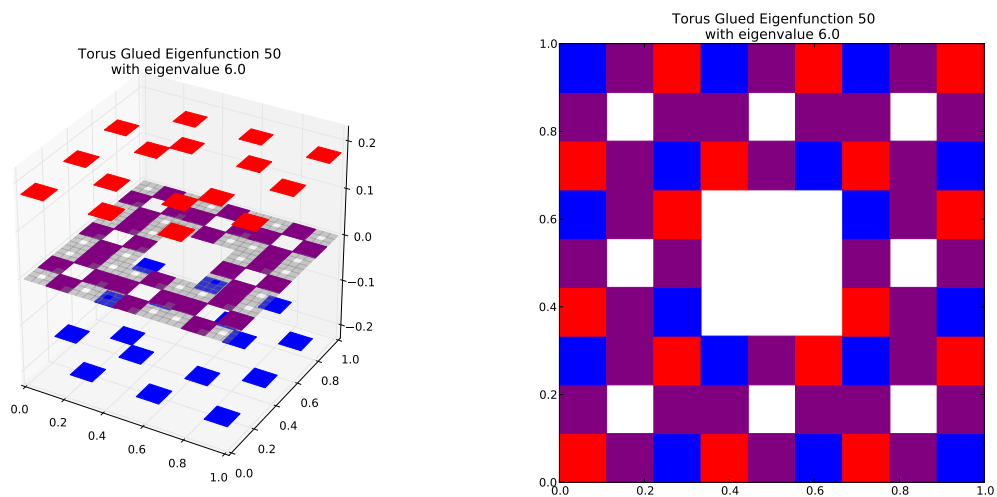
Eigenfunction 48 with eigenvalue 5.57257068024



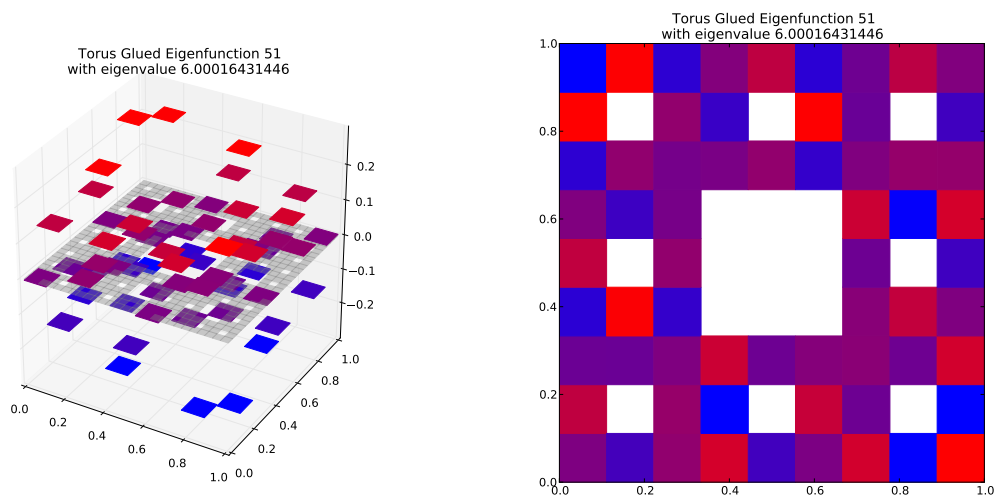
Eigenfunction 49 with eigenvalue 5.94691370594



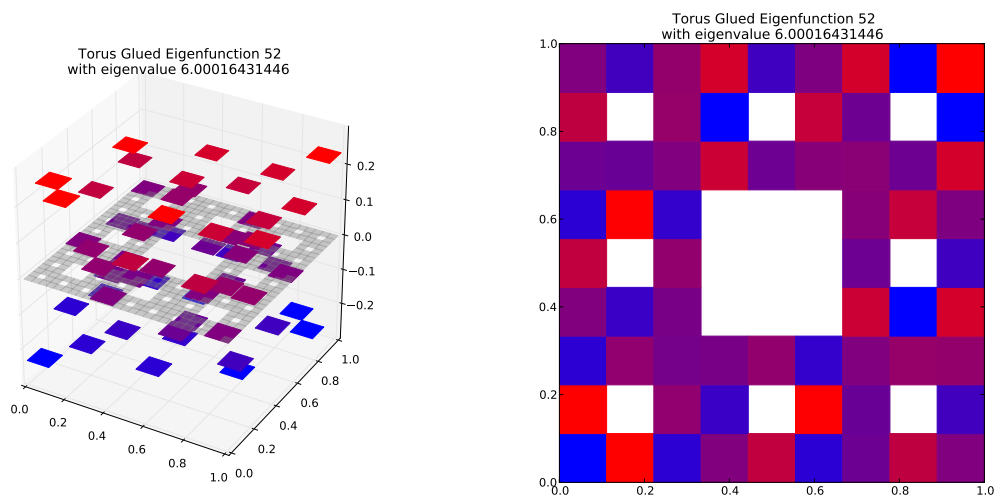
Eigenfunction 50 with eigenvalue 6.0



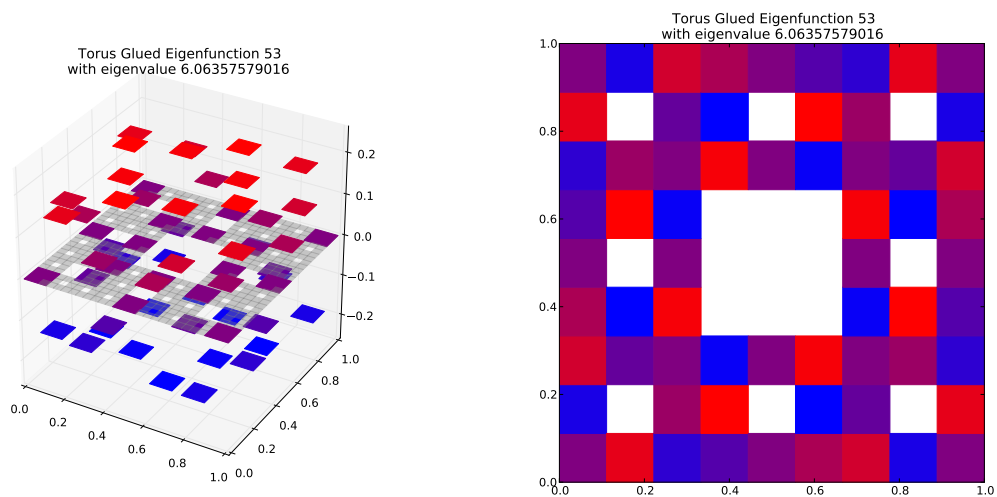
Eigenfunction 51 with eigenvalue 6.00016431446



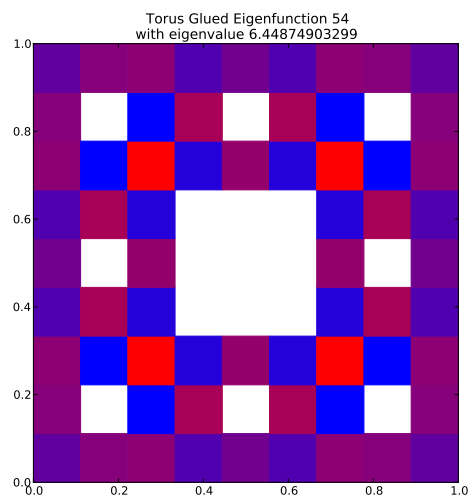
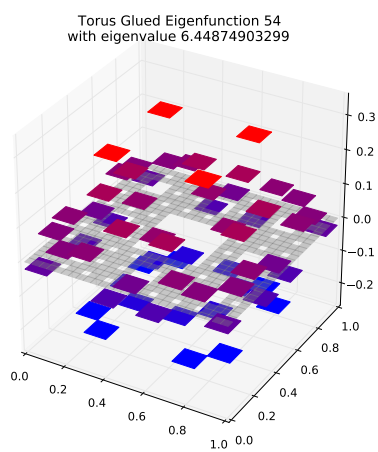
Eigenfunction 52 with eigenvalue 6.00016431446



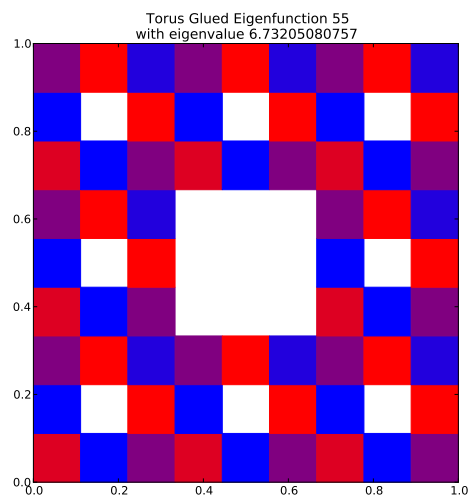
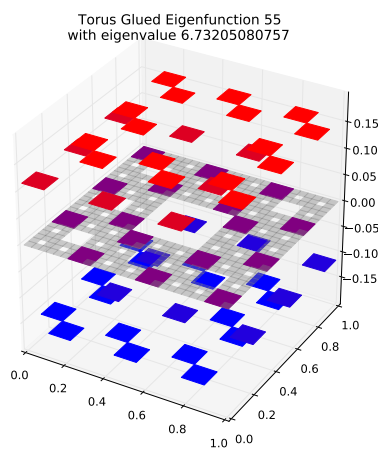
Eigenfunction 53 with eigenvalue 6.06357579016



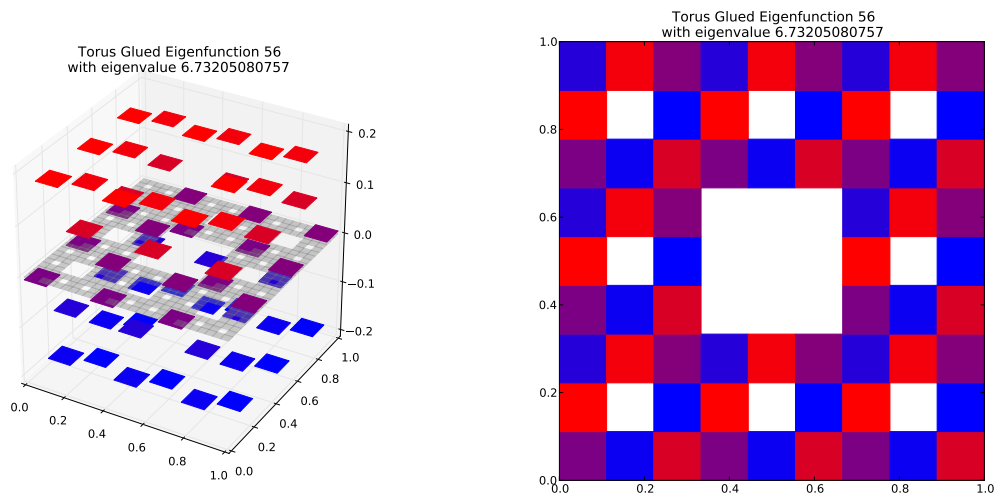
Eigenfunction 54 with eigenvalue 6.44874903299



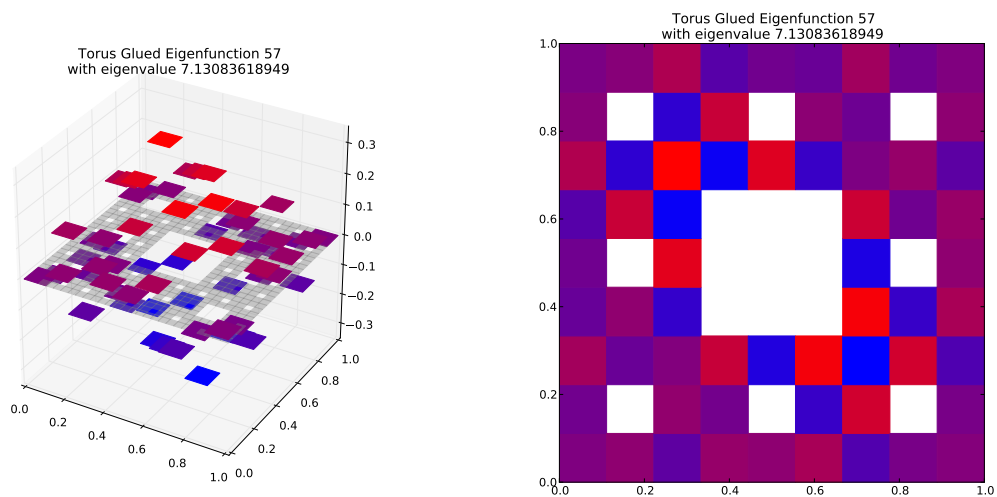
Eigenfunction 55 with eigenvalue 6.73205080757



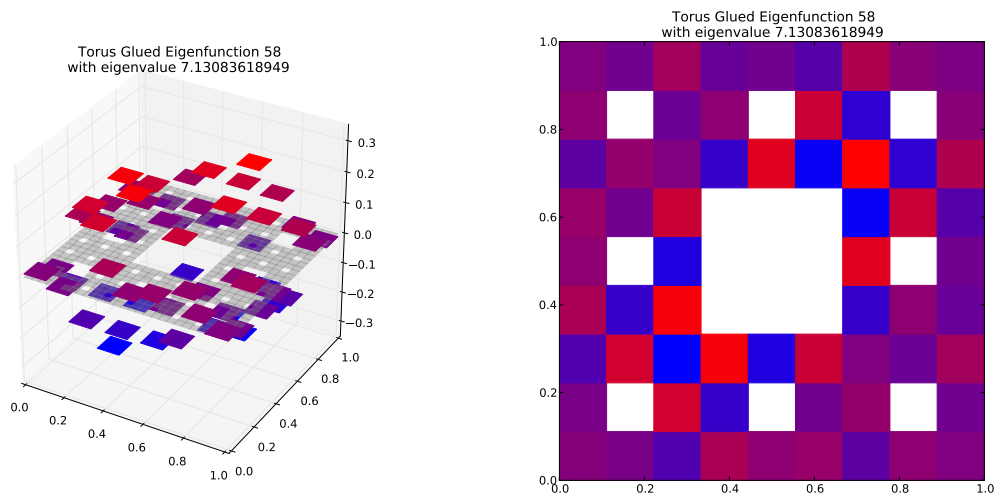
Eigenfunction 56 with eigenvalue 6.73205080757



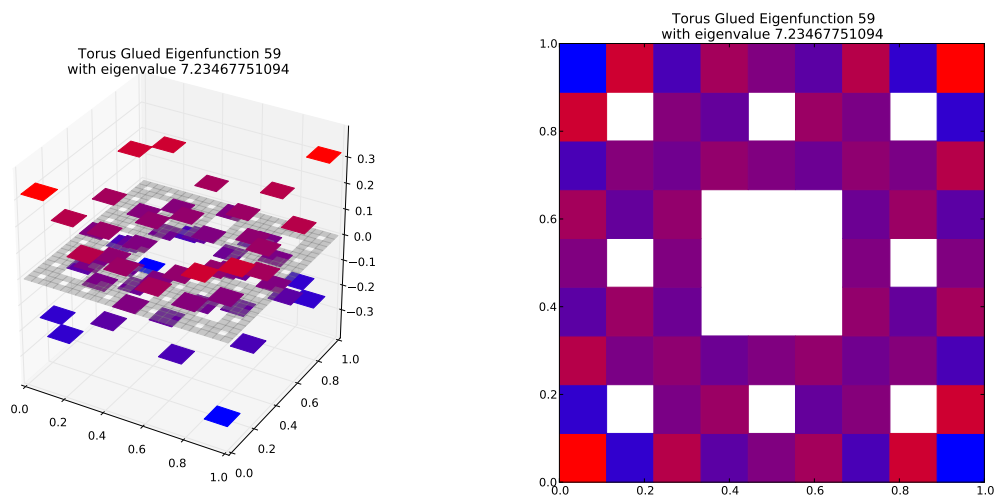
Eigenfunction 57 with eigenvalue 7.13083618949



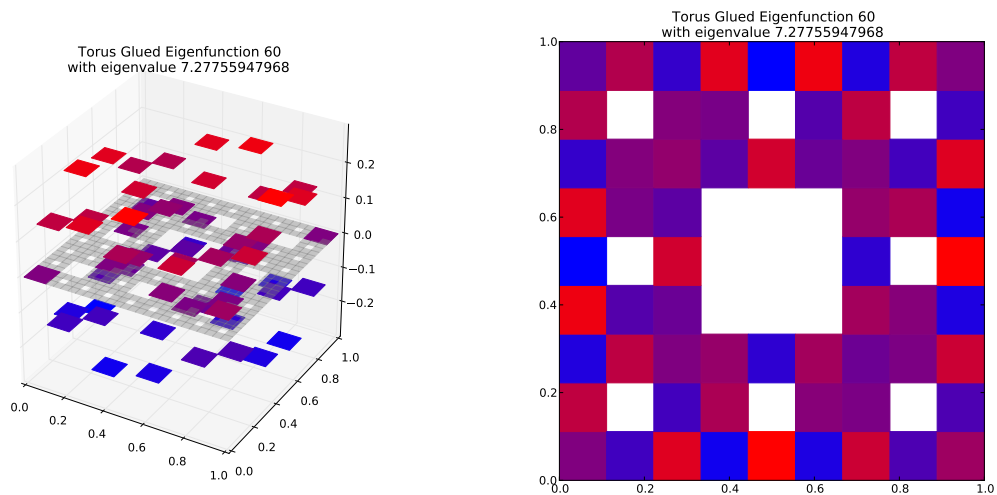
Eigenfunction 58 with eigenvalue 7.13083618949



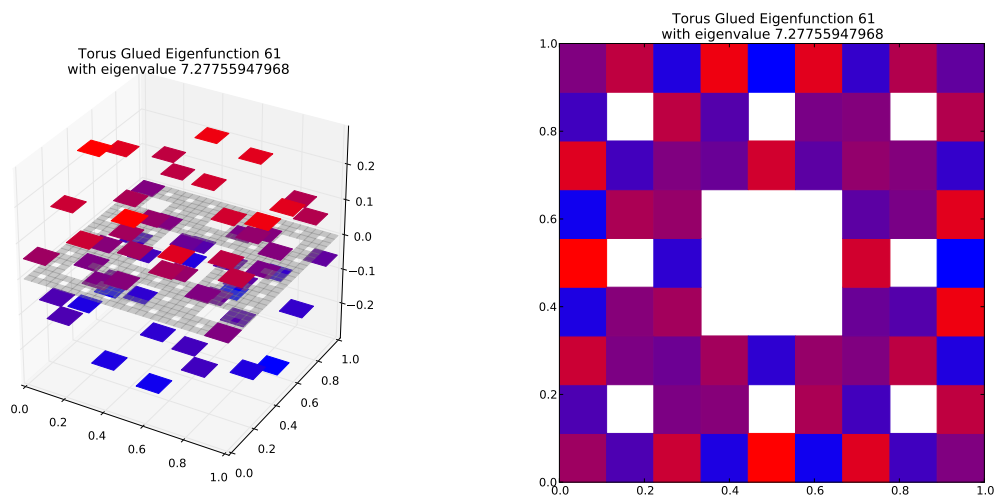
Eigenfunction 59 with eigenvalue 7.23467751094



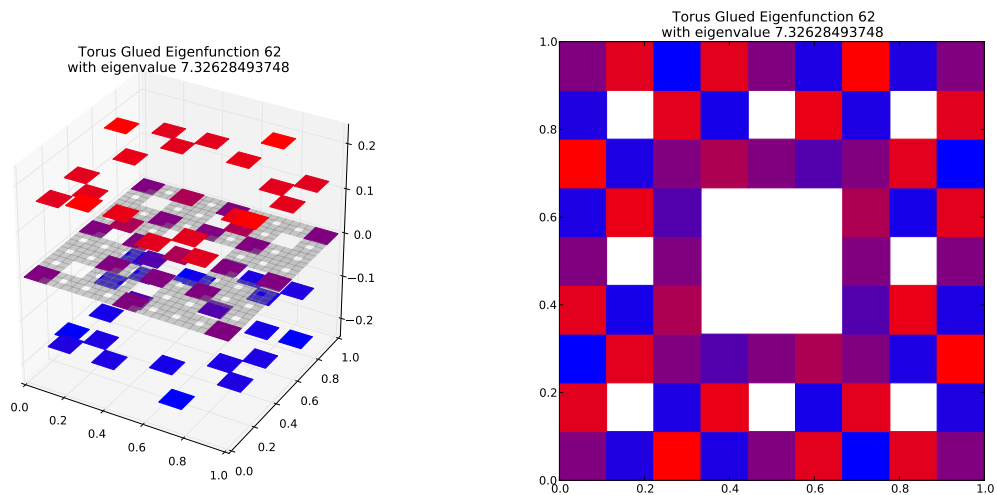
Eigenfunction 60 with eigenvalue 7.27755947968



Eigenfunction 61 with eigenvalue 7.27755947968



Eigenfunction 62 with eigenvalue 7.32628493748



Eigenfunction 63 with eigenvalue 7.35794927845

