

# TikZ-Bagua 宏包

王旭 (WANG Xu)

duplli@aliyun.com

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## 1 简介

TikZ-Bagua 宏包使用 TikZ 宏包, 借助于 xparse, xstring, bitset 以及 xintexpr, 定义了 `\taiji`, `\liangyi`, `\sixiang`, 三爻 `\bagua` 和六爻 `\Bagua`, 画出《周易》中所用的的太极阴阳, 两仪四象八卦和六十四卦符号, 对字体没有要求.

## 2 使用方法

所定义的上述五个命令中最后一个可选参数均为放缩参数, 除了 `\taiji` 中的缺省值为 0.816 之外, 其他四个的均为 1.

### 2.1 太极阴阳

`\taiji [<scale>]`.

`\taiji` 直接得到符号 ☯.

### 2.2 两仪

`\liangyi {<bin>} [<scale>]`.

`\liangyi{<bin>}` 通过接受参数 1 或 0 得到两仪符号 — 或 --.

### 2.3 四象

`\sixiang {<bin>} [<scale>]`, `\sixiang* {<dec>} [<scale>]`.









`\sixiang{<bin>}` 通过接受参数 3, 2, 1, 0 的二进制数得到四象符号, 而 `\sixiang*{<dec>}` 接收十进制数.

11	10	01	00
==	--	==	--
3	2	1	0

## 2.4 三爻八卦

`\bagua {<bin>} [<scale>]`, `\bagua* {<dec>} [<scale>]`.

`\bagua{<bin>}` 通过接受参数 7, 6, ..., 0 的二进制数得到三爻八卦符号, 而 `\bagua*{<dec>}` 接收十进制数.

































































111	110	101	100	011	010	001	000
							
7	6	5	4	3	2	1	0

## 2.5 六爻八卦

`\Bagua [<2,8>]{<bin,oct>} [<scale>]`, `\Bagua* {<dec>} [<scale>]`.

`\Bagua{<bin>}` 通过接受参数 63, 62, ..., 0 的二进制数得到六爻八卦符号, `\Bagua[8]{<oct>}` 接收的为 63, 62, ..., 0 的八进制数, 而 `\Bagua*{<dec>}` 接收十进制数.

列出所有的六十四卦, 其中每卦上一行六位数为对应的二进制数, 下一行左右两边分别为对应的十进制和八进制数.

111111	111110	111101	111100	111011	111010	111001	111000
							
63 77	62 76	61 75	60 74	59 73	58 72	57 71	56 70
110111	110110	110101	110100	110011	110010	110001	110000
							
55 67	54 66	53 65	52 64	51 63	50 62	49 61	48 60
101111	101110	101101	101100	101011	101010	101001	101000
							
47 57	46 56	45 55	44 54	43 53	42 52	41 51	40 50
100111	100110	100101	100100	100011	100010	100001	100000
							
39 47	38 46	37 45	36 44	35 43	34 42	33 41	32 40
011111	011110	011101	011100	011011	011010	011001	011000
							
31 37	30 36	29 35	28 34	27 33	26 32	25 31	24 30
010111	010110	010101	010100	010011	010010	010001	010000
							
23 27	22 26	21 25	20 24	19 23	18 22	17 21	16 20
001111	001110	001101	001100	001011	001010	001001	001000
							
15 17	14 16	13 15	12 14	11 13	10 12	9 11	8 10
000111	000110	000101	000100	000011	000010	000001	000000
							
7 07	6 06	5 05	4 04	3 03	2 02	1 01	0 00