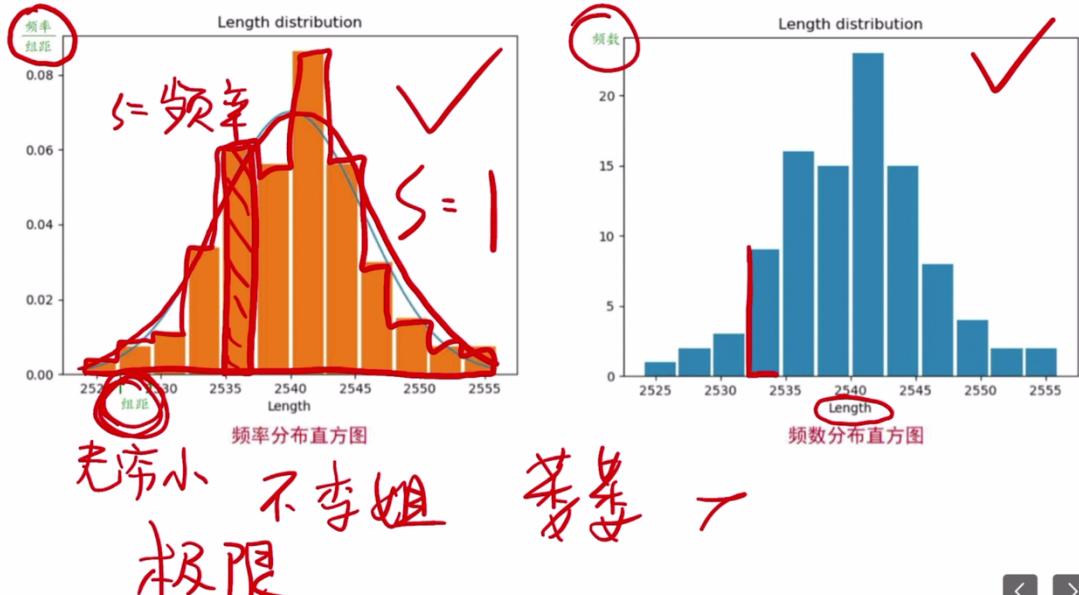
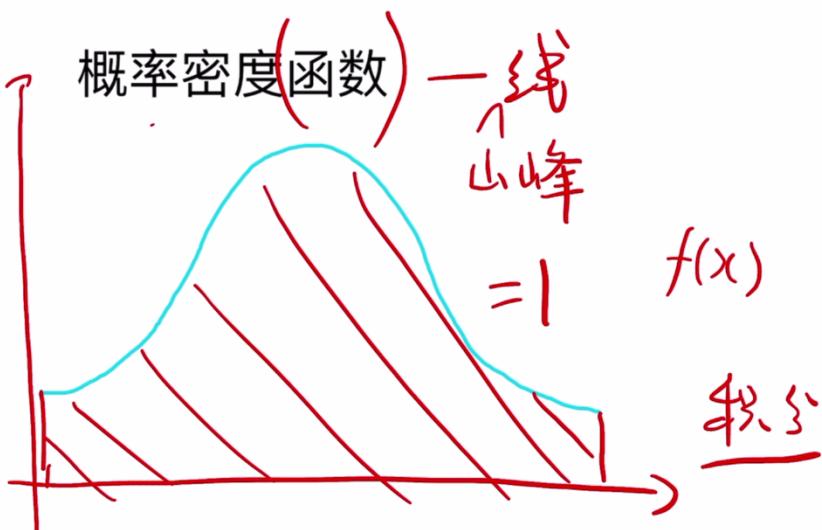


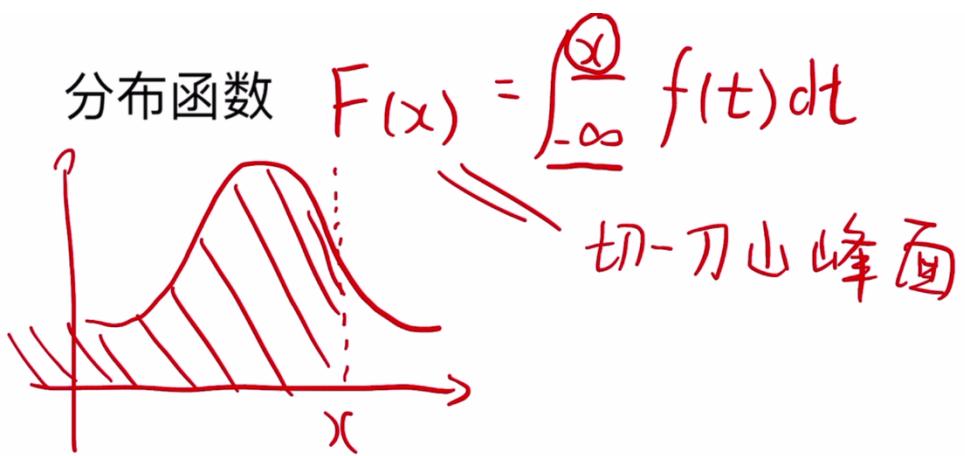
概率论基础



< >



< >



分支啦

随机变量

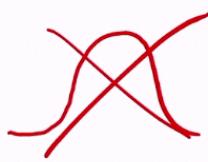
连 ✓ ~ 女 180.1314

离 6

1 ~ 2 ~ 3 4 5 6

x

概率分布=分布律=概率函数



X	1	2	3
P	0	$\frac{1}{2}$	$\frac{1}{2}$

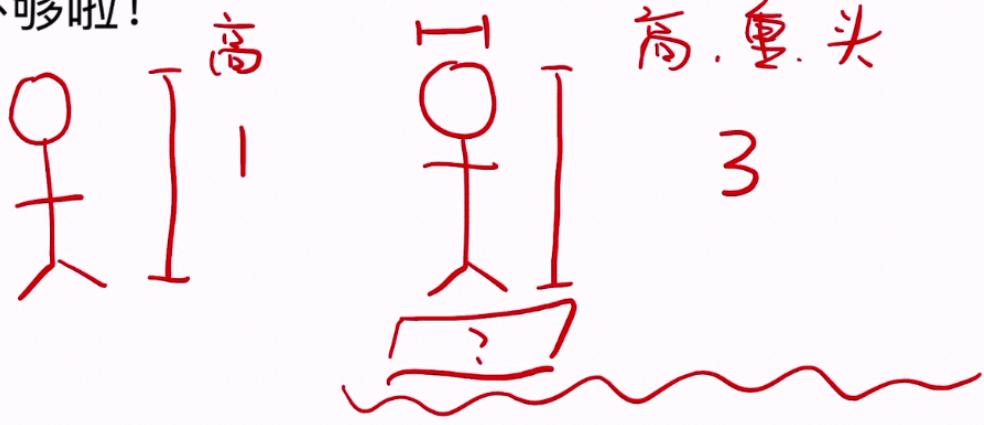
分布表 ✓

$$P(X = x_i) = P_i$$

$$P(X = 1) = 0$$

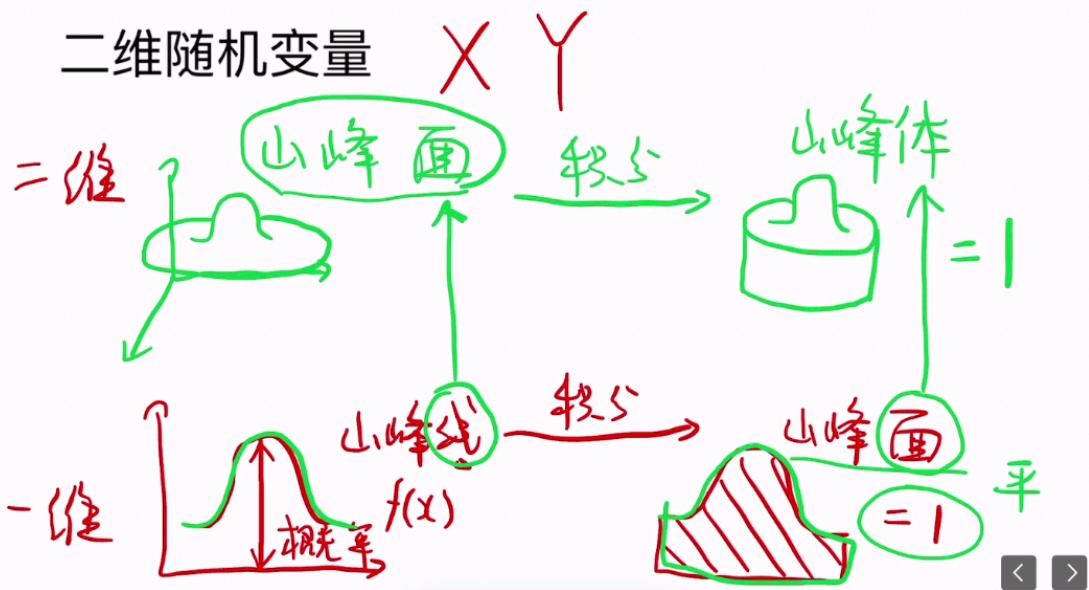


不够啦！



- 维 升维 二维





联合分布函数

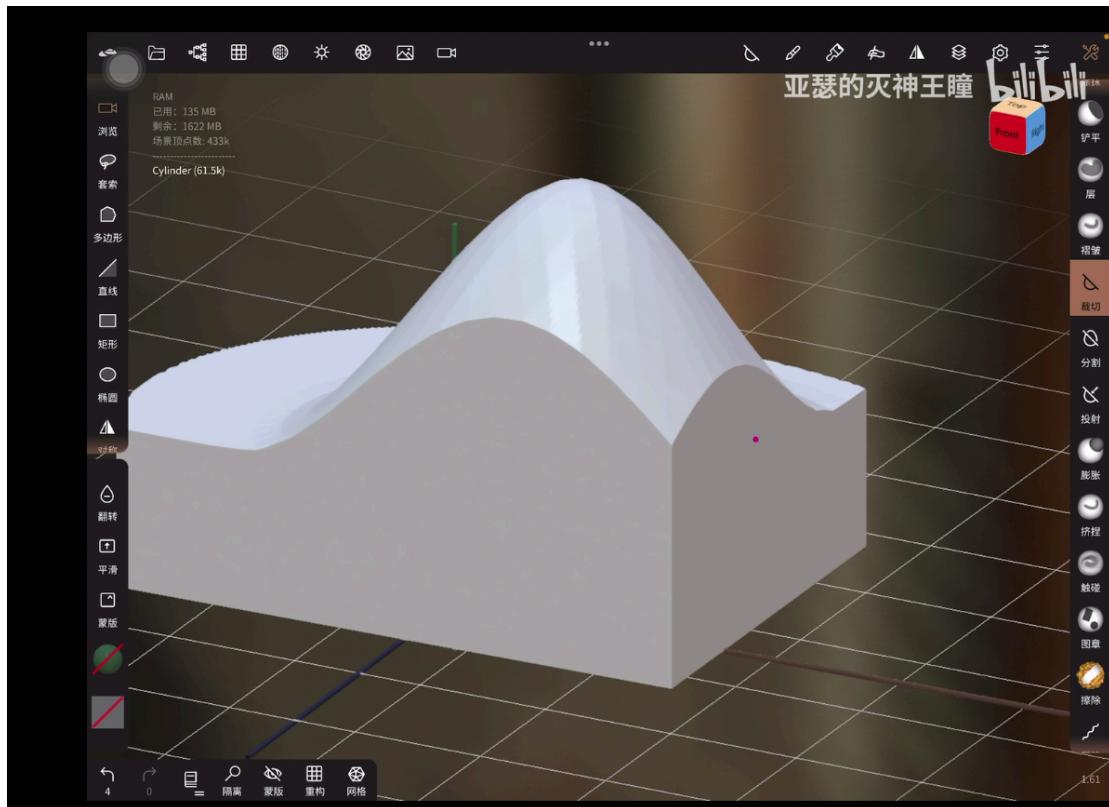
山峰体

$$F(x, y) = \int_{-\infty}^x \int_{-\infty}^y f(u, v) du dv$$

tDZ刀

$$= P(X \leq x, Y \leq y)$$

切① 切②



又分支啦！
离散

X	
*	

X	5	6
1	$\frac{1}{4}$	$\frac{1}{8}$
3	$\frac{1}{8}$	$\frac{1}{2}$

1且5 1且6

联合分布律

△△

5布袋

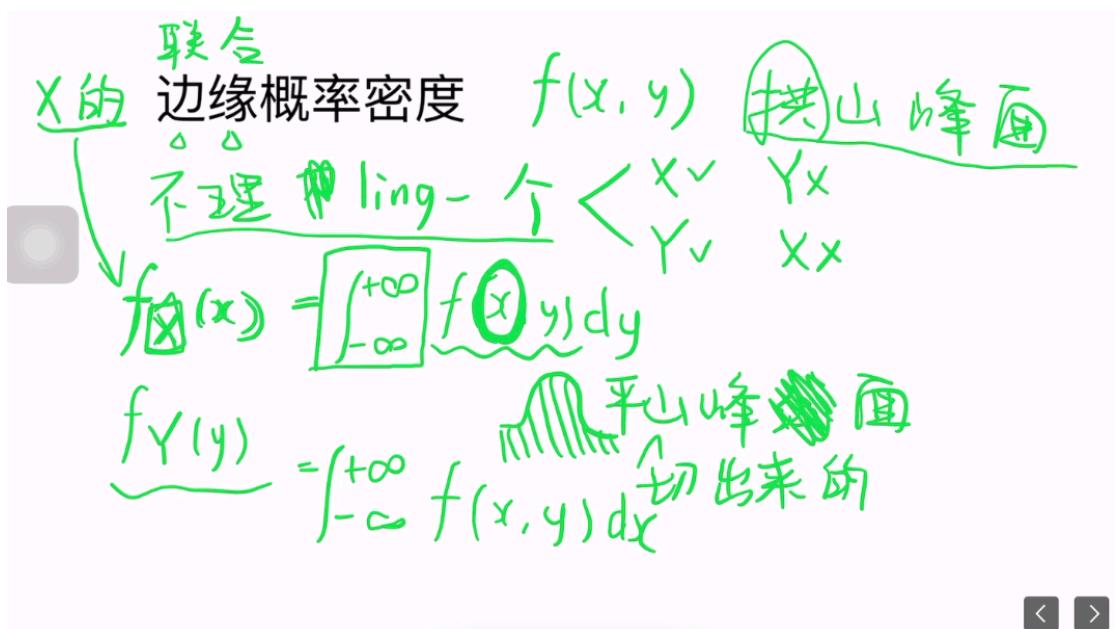
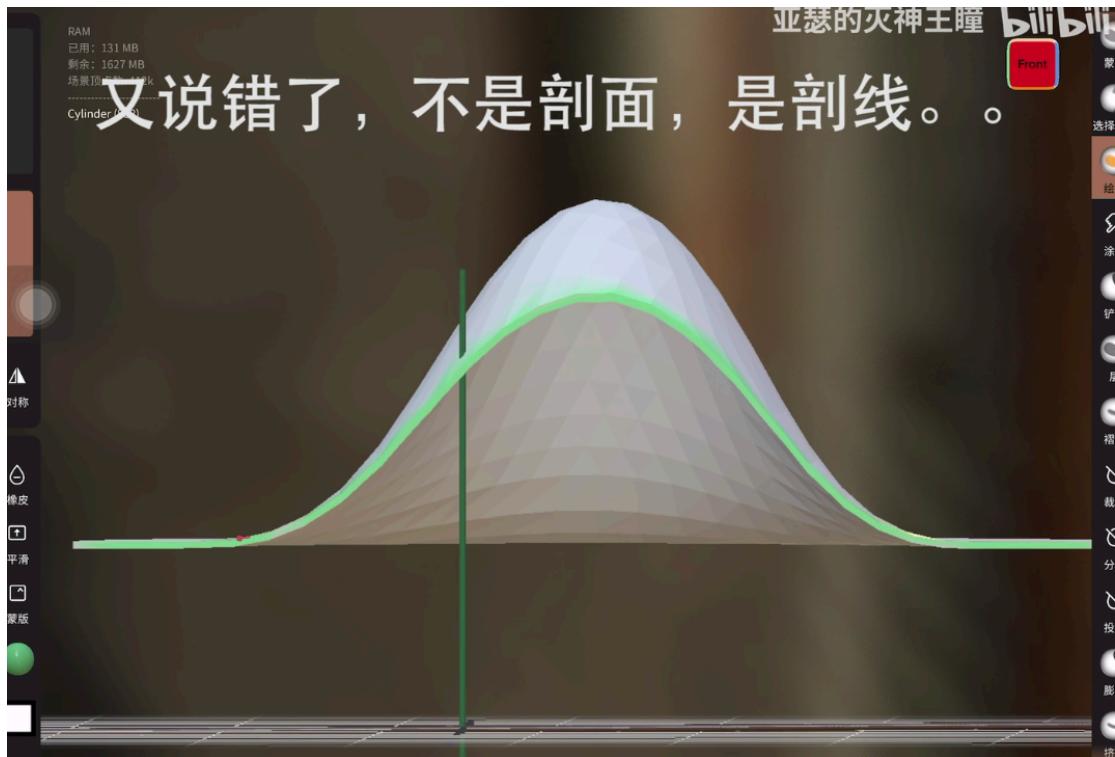
$$P(X=x_i, Y=y_j) = P_{ij}$$

$$P(X=1, Y=5) = \frac{1}{4}$$

隐藏关卡！？

高数：偏导 不理解一个

概率：边缘



X 的 边缘分布函数 切 2 刀 山 峰 体

不管另一个 $F_X(x)$ 是 切 x - 刀
切 - 刀 $F_Y(y)$ 是 切 y - 刀

$F_X(x) = P(X \leq x)$ ~~$X < +\infty$~~
切 - 刀 山 峰 体



又分支啦! 离散 边缘分布表

X	
*	

X\Y	5	6
1	$\frac{1}{4}$	$\frac{1}{8}$
3	$\frac{1}{2}$	$\frac{1}{2}$

X 的 ... 表



数据处理

1-3

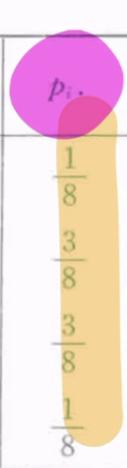
	3
	$\frac{1}{8}$
-	0
-	0
	$\frac{1}{8}$



表 3-4

X \ Y	1	3	p_{ij}
0	0	$\frac{1}{8}$	$\frac{1}{8}$
1	$\frac{3}{8}$	0	$\frac{3}{8}$
2	$\frac{3}{8}$	0	$\frac{3}{8}$
3	0	$\frac{1}{8}$	$\frac{1}{8}$

$p_{\cdot j}$



随机变量

^
63
/ 34
▼
+
G