

# **Great title for a great paper**

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# 1 A bit of lorem ipsum

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## 1.1 Sections are also possible

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## **1.2 Another section**

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## 2 Table fun

Table 2.1: Test table with fancy colors

<i>Row 1</i>	<i>Row 2</i>	<i>Row 3</i>
<b>Item 1</b>	<b>Item 2</b>	<b>Item 3</b>
<u>Item 4</u>	<u>Item 5</u>	<u>Item 6</u>

That table 2.1 is great!

### 3 Picturing it

No more floating problems with [H]!

**TEST  
PHOTO  
PLEASE  
EXCUSE US**

With [H] it's really "here"! And there's a test cite<sup>1</sup>

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<sup>1</sup>[IEEE09](#).

## 4 Minted

Python code example:

---

```
1 import numpy as np
2
3 def incmatrix(genl1,genl2):
4     m = len(genl1)
5     n = len(genl2)
6     M = None #to become the incidence matrix
7     VT = np.zeros((n*m,1), int) #dummy variable
8
9     #compute the bitwise xor matrix
10    M1 = bitxormatrix(genl1)
11    M2 = np.triu(bitxormatrix(genl2),1)
12
13    for i in range(m-1):
14        for j in range(i+1, m):
15            [r,c] = np.where(M2 == M1[i,j])
16            for k in range(len(r)):
17                VT[(i)*n + r[k]] = 1;
18                VT[(i)*n + c[k]] = 1;
19                VT[(j)*n + r[k]] = 1;
20                VT[(j)*n + c[k]] = 1;
21
22            if M is None:
23                M = np.copy(VT)
24            else:
25                M = np.concatenate((M, VT), 1)
26
27            VT = np.zeros((n*m,1), int)
28
29    return M
```

---

## 5 Math is always fun

Let  $k_i$  be a stochastic transition kernel from  $(\times_{j=0}^{i-1} \Omega_j, \times_{j=0}^{i-1} \mathcal{A}_j)$  to  $(\Omega_i, \mathcal{A}_i)$ .

$\times_{j=0}^{i-1} \Omega_j$  is for the cartesian product,

$\times_{j=0}^{i-1} \mathcal{A}_j$  is for the product of sigma-algebras.

Let's define the probability measures  $P_i = P_0 \otimes \bigotimes_{j=1}^i k_j$  on  $(\times_{j=0}^i \Omega_j, \times_{j=0}^i \mathcal{A}_j)$ .

Then why do we have that  $P_i(A \times \Omega_{k+1} \cdots \times \Omega_i) = P_j(A \times \Omega_{k+1} \cdots \times \Omega_j)$ , for any  $A \in \times_{j=0}^k \mathcal{A}_j$  with  $j, i \geq k$ ?



# Bibliography

- [IEE09] IEEE. *IEEE Citation Guide*. <http://www.ieee.org/documents/ieeecitationref.pdf>. Sept. 2009.