The Newest LaTeX Template for MCM

January 27, 2013

Abstract

The abstract is here.

Contents

1 Introduction

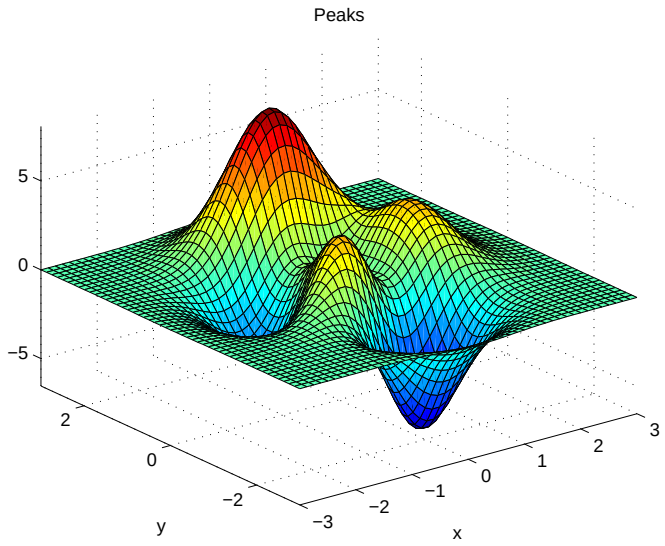

Fig 1: The figure

She said the nomination should not be decided by delegates from Florida and Michigan allocated on the basis of voting in primaries there last month, as the Clinton campaign has proposed. Mrs. Clinton got more votes in both places, although neither candidate actively campaigned there and Mr. Obama was not even on the ballot in Michigan. The party had penalized those states for holding their primaries earlier than the party wanted by stripping them of their delegates to the convention.Although Mr. Gore has expressed concerns to some associates about the damage a brokered convention could cause, several associates said he was hopeful that one candidate would soon break through, sparing the party such an outcome. He told a close friend recently that his decision not to endorse feels like the right thing and that he remained optimistic the race is going to tip at some point, the friend said.

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- . . . is constant.
- do not affect the population.
- have no effect on . . . .we can ignore it.
- . . . is negligible
-
-
-

2 Input the mathematic formula

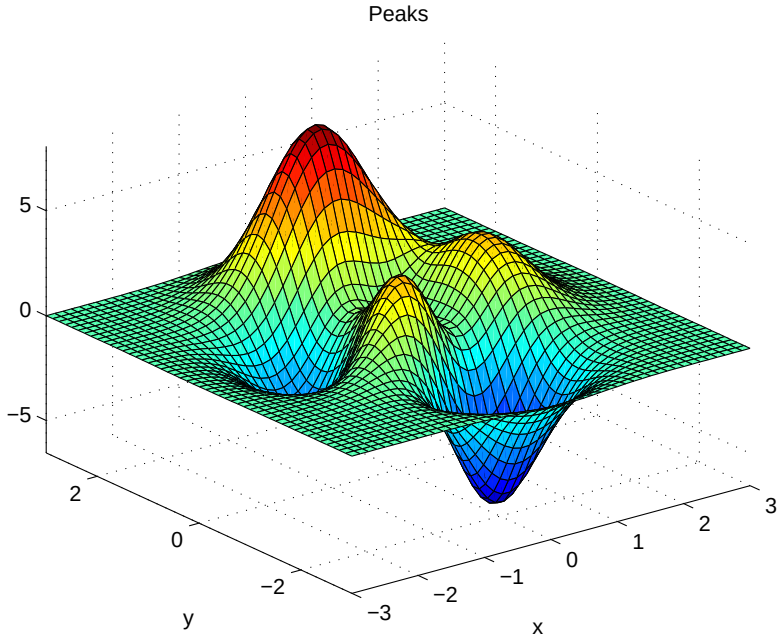

Fig 2: aa

$$\begin{aligned}(a+b)^4 &= (a+b)^2(a+b)^2 \\ &= (a^2+2ab+b^2)(a^2+2ab+b^2) \\ &= a^4+4a^3b+6a^2b^2+4ab^3+b^4\end{aligned} \tag{1}$$

$$\begin{aligned}(a+b)^3 &= (a+b)(a+b)^2 \\ &= (a+b)(a^2+2ab+b^2) \\ &= a^3+3a^2b+3ab^2+b^3\end{aligned} \tag{2}$$

$$(a+b)^3 = (a+b)(a+b)^2 \tag{3}$$

$$= (a+b)(a^2+2ab+b^2) \tag{4}$$

$$= a^3+3a^2b+3ab^2+b^3 \tag{5}$$

$$x^2+y^2=1 \tag{6}$$

$$x=\sqrt{1-y^2} \tag{7}$$

This example has two column-pairs.

$$\text{Compare } x^2 + y^2 = 1 \qquad x^3 + y^3 = 1 \tag{8}$$

$$x = \sqrt{1 - y^2} \qquad x = \sqrt[3]{1 - y^3} \tag{9}$$

This example has three column-pairs.

$$x = y \qquad X = Y \qquad a = b + c \tag{10}$$

$$x' = y' \qquad X' = Y' \qquad a' = b \tag{11}$$

$$x + x' = y + y' \qquad X + X' = Y + Y' \qquad a'b = c'b \tag{12}$$

This example has two column-pairs.

$$\text{Compare } x^2 + y^2 = 1 \qquad x^3 + y^3 = 1 \tag{13}$$

$$x = \sqrt{1 - y^2} \qquad x = \sqrt[3]{1 - y^3} \tag{14}$$

This example has three column-pairs.

$$x = y \qquad X = Y \qquad a = b + c \tag{15}$$

$$x' = y' \qquad X' = Y' \qquad a' = b \tag{16}$$

$$x + x' = y + y' \qquad X + X' = Y + Y' \qquad a'b = c'b \tag{17}$$

This example has two column-pairs.

$$\text{Compare } x^2 + y^2 = 1 \qquad x^3 + y^3 = 1 \tag{18}$$

$$x = \sqrt{1 - y^2} \qquad x = \sqrt[3]{1 - y^3} \tag{19}$$

This example has three column-pairs.

$$x = y \qquad X = Y \qquad a = b + c \tag{20}$$

$$x' = y' \qquad X' = Y' \qquad a' = b \tag{21}$$

$$x + x' = y + y' \qquad X + X' = Y + Y' \qquad a'b = c'b \tag{22}$$

$$x = y \qquad \text{by hypothesis} \tag{23}$$

$$x' = y' \qquad \text{by definition} \tag{24}$$

$$x + x' = y + y' \qquad \text{by Axiom 1} \tag{25}$$

$$\begin{aligned} x^2 + y^2 &= 1 \\ x &= \sqrt{1 - y^2} \\ \text{and also } y &= \sqrt{1 - x^2} \end{aligned} \qquad \begin{aligned} (a+b)^2 &= a^2 + 2ab + b^2 \\ (a+b) \cdot (a-b) &= a^2 - b^2 \end{aligned} \tag{26}$$

$$
\begin{aligned}
x^2 + y^2 &= 1 \\
x &= \sqrt{1 - y^2} \\
\text{and also } y &= \sqrt{1 - x^2} \qquad (a+b)^2 = a^2 + 2ab + b^2 \\
&\qquad\qquad\quad (a+b) \cdot (a-b) = a^2 - b^2
\end{aligned} \tag{27}
$$

$$
\left.
\begin{aligned}
B' &= -\partial \times E \\
E' &= \partial \times B - 4\pi j
\end{aligned}
\right\} \text{ Maxwell's equations}
$$

$$
\begin{aligned}
V_j &= v_j & X_i &= x_i - q_i x_j & &= u_j + \sum_{i \neq j} q_i \\
V_i &= v_i - q_i v_j & X_j &= x_j & U_i &= u_i
\end{aligned} \tag{28}
$$

$$A_1 = N_0(\lambda;\Omega') - \phi(\lambda;\Omega') \tag{29}$$

$$A_2 = \phi(\lambda;\Omega')\phi(\lambda;\Omega) \tag{30}$$

and finally

$$A_3 = \mathcal{N}(\lambda;\omega) \tag{31}$$

Although Mr. Gore has expressed concerns to some associates about the damage a brokered convention could cause, several associates said he was hopeful that one candidate would soon break through, sparing the party such an outcome. He told a close friend recently that his decision not to endorse feels like the right thing and that he remained optimistic the race is going to tip at some point, the friend said.

$$\begin{pmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \\ a_{31} & a_{32} & a_{33} \end{pmatrix} = \frac{Opposite}{Hypotenuse} \cos^{-1}\theta \arcsin\theta$$

Although Mr. Gore has expressed concerns to some associates about the damage a brokered convention could cause, several associates said he was hopeful that one candidate would soon break through, sparing the party such an outcome. He told a close friend recently that his decision not to endorse feels like the right thing and that he remained optimistic the race is going to tip at some point, the friend said.

$$p_j = \begin{cases} 0, & \text{if } j \text{ is odd} \\ r!\,(-1)^{j/2}, & \text{if } j \text{ is even} \end{cases}$$

Although Mr. Gore has expressed concerns to some associates about the damage a brokered convention could cause, several associates said he was hopeful that

one candidate would soon break through, sparing the party such an outcome. He told a close friend recently that his decision not to endorse feels like the right thing and that he remained optimistic the race is going to tip at some point, the friend said.

$$\arcsin\theta = \oiiint_{\varphi} \lim_{x\to\infty} \frac{n!}{r!\,(n-r)!} \tag{1}$$

3 Table

References

[1] D. E. KNUTH " The TEXbook " the American Mathematical Society and AddisonCWesley Publishing Company , 1984-1986.

[2] Lamport, Leslie, LATEX: " A Document Preparation System ", Addison-Wesley Publishing Company, 1986.

Appendix A

Here are simulation programmes we used in our model as follow.

Input matlab source:

```
function [t,seat,aisle]=OI6Sim(n,target,seated)

%   t simulation time
%   seat ,seat interference
%   aisle ,aisle interference


% Initial data
% setting passengers' Value:
%                    walking          .....   1
%                    waiting          .....   2
%                    putting luggage  .....   3
%                    passing the seat .....   4
%                     sitting          .....   0


% on initial time, everyone is waiting,except the first one

seat=0;
aisle=0;

status=2*ones(1,n);
status(1)=1;

pos=-(0:0.6:(n-1)*0.6);
```

```
    pri=[-1,1:n-1];
    next=[2:n,-1];


RowSpeed=trirnd(0.6,0.95,1.3,1,n);

pab=rand(1,n);
for  i=1:n
     if  pab(i)<0.4
        aisleTime(i)=0;
     else
         aisleTime(i)=trirnd  (3.2,7.1,38.7)  ;
     end
end

% seat  interference  time
seatTime=trirnd (7.4,9.7,15.5) ;

t=0;
while sum(status) ~=0

     t=t  +  0.1;
     for  i=1:n

          switch status(i)
               case  {0}

                    if   next(i)>0 &&abs(status(next(i))-2)<0.1
                         status(next(i))=1;
                    end

%                     disp('have sit  down');

               case  {1}

%                     disp('Walking');

                      if   next(i)>0 &&abs(status(next(i))-2)<0.1
                         status(next(i))=1;
                      end


                      pos(i)=pos(i)+RowSpeed(i)*0.1;

                      if  abs(pos(i)-target(1,i))<0.2

                           status(i)=3;
                           if  abs(aisleTime(i))<0.01
                                aisle=aisle+1;
```

```
                    end

                        if  next(i)>0 &&abs(status(next(i))-1)<0.1

                            status(next(i))=2;
                    end

                end


            case {2}

%                   disp('Blocking');
                if  next(i)>0 &&abs(status(next(i))-1)<0.1

                    status(next(i))=2;
                end

            case {3}            %put luggage    aisle  interference

                disp('aisle interference');

                if abs(aisleTime(i))<0.01

                  if  n==12 && target(2,i)==1 && seated(target(1,i),2)==1
                      status(i) = 4;
                      seat=seat+1;
                   elseif  n==12 && target(2,i)==4 && seated(target(1,i),3)==1
                      status(i) = 4;
                      seat=seat+1;
                   else

                       status(i)=0;
                       seated(target(1,i),target(2,i)) = 1;
                   end

                else
                    aisleTime(i)=aisleTime(i)-0.1;

                end

            case {4}                % seat interference

                if abs(aisleTime(i))<0.01   %
                    status(i)=0;
                    seated(target(1,i),target(2,i)) = 1;
                else

                    seatTime(i)=seatTime(i)-0.1;
                end
```

```
            end  %switch
        end %for

    end %while
```