

```

%discreet
t = 0:5;
s = t;
P = [1.0095,0.0095,0,0,0,0;0.9634,1.9649,0.0015,0,0,0;0,0.0001,1.0006,0.0005,0,0;0,0,0.0002,1.8
dX = P(:,2:6)-P(:,1:5);
Mu = mean(P,1);
Sigma2 = var(P,1);
Sigma = std(P,1);
W = repmat(ones(1,6)./sqrt(2*pi*Sigma2),6,1).*exp(-P-repmat(Mu,6,1)).^2/2./repmat(Sigma.^2,6,1);
G = exp(Mu.*t-Sigma.^2.*t/2+Sigma.*W);
d = sqrt(mean(dX.^2,1));
d = [sqrt(mean(P(:,1).^2)),d];
Kd = max(d);
K = 12;
h = min(2^(-6)/2/sqrt(2)/K^2/Kd, 2^(-6));
EPS = 2^(-6/2);
GAMMA = sum(exp(-W.*t).*G.*G'.*exp(-W.*t)',1);
OM = W;
T = W;
for i = 1:6
    if i >1
        OM(:,i) = [(Mu(1:i-1)-Mu(i))';0;(Mu(i+1:6)-Mu(i))'];
    else
        OM(:,1) = [0;(Mu(i+1:6)-Mu(i))'];
    end
end
E = exp(W.*t).*exp(W).*(h*6-t).*P;
C = exp(W.*t).*GAMMA.*exp(W.*t)'+GAMMA.*(h*6-t);
for i = 1:6
    if i >1
        T(:,i) = [(Mu(1:i-1)*h.*exp(-Mu(1:i-1).*h).*P(1:i-1)/Mu(i))';exp(-Mu(i)*h)';(Mu(i+1:6)*h.*exp(-Mu(i+1:6).*h).*P(i+1:6)/Mu(i))'];
    else
        T(:,i) = [exp(-Mu(i)*h)';(Mu(i+1:6)*h.*exp(-Mu(i+1:6).*h).*P(i+1:6)/Mu(i))'];
    end
end
z0 = 1;
z = z0*T.^ceil(t./h);

%
%continuous with h1,h2
t = 0:5;
sc = t;
P = [1.0095,0.0095,0,0,0,0;0.9634,1.9649,0.0015,0,0,0;0,0.0001,1.0006,0.0005,0,0;0,0,0.0002,1.8
dX = P(:,2:6)-P(:,1:5);
Muc = mean(P,1);
Sigma2c = var(P,1);
Sigmac = std(P,1);
Wc = repmat(ones(1,6)./sqrt(2*pi*Sigma2c),6,1).*exp(-P-repmat(Muc,6,1)).^2/2./repmat(Sigmac.^2,6,1);
Gc = exp(Muc.*t-Sigmac.^2.*t/2+Sigmac.*Wc);
dc = sqrt(mean(dX.^2,1));
dc = [sqrt(mean(P(:,1).^2)),dc];
Kdc = max(dc);
Kc = 12;

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hc = 1.716;%(1.716)as 2
EPSc = 2^(-6/2);
GAMMAc = exp(-Wc.*t).*Gc.*Gc'.*exp(-Wc.*t)';
OMc = Wc;
TC = Wc(1:ceil(hc*6),:);
%Lambda = -log(P+0.00000001)./(h+0.00000001);
dxc = 0.2
for i = 1:6
    for j = 1:6
        if j > 1
            TC(1:ceil(hc*6),j) = [sum(sum(normpdf(E(1:i-1,j),ccepts(1:i-1,j)).*OMc(1:i-1,j))*dxc);sum(sum(normpdf(E(1:i-1,j),ccepts(1:i-1,j)).*OMc(1:i-1,j))*dxc)];
        else
            TC(1:ceil(hc*6),j) = [sum(normpdf(exp(Wc(j)*hc)*P(j),GAMMAc(j,1:ceil(hc*6))))];sum(sum(normpdf(E(1:i-1,j),ccepts(1:i-1,j)).*OMc(1:i-1,j))*dxc)];
        end
    end
    if i >=ceil(hc*6)
        break
    end
end
Tc = normpdf(TC);

%error bound
N = size(P,2);
m = ceil(hc*6);
L = m;
h1 = 0.001;
h2 = hc;
dx = 0.02;
err = N*m*h2+N*L*h2;

h12c = 0.001
dX12c = P1c(:,2:6)-P1c(:,1:5);
Mu12c = mean(P1,1);
Sigma212 = var(P1,1);
Sigma12 = std(P1,1);
W12 = repmat(ones(1,6)./sqrt(2*pi*Sigma212),6,1).*exp(-P1-repmat(Mu12,6,1)).^2/2./repmat(Sigma12,6,1);
G12 = exp(Mu12.*t-Sigma212.^2.*t/2+Sigma212.*W12);
d12 = sqrt(mean(dX12.^2,1));
d12 = [sqrt(mean(P1(:,1).^2)),d12];
Kd12 = max(d12);
K = 12;
% h12 = min(2^(-6)/2/sqrt(2)/K^2/Kd, 2^(-6));
% EPS = 2^(-6/2);
GAMMA12 = sum(exp(-W12.*t).*G12.*G12'.*exp(-W12.*t)',1);
for i = 1:6
    if i >1
        OM12(:,i) = [(Mu12(1:i-1)-Mu12(i))';0;(Mu12(i+1:6)-Mu12(i))'];
    else
        OM12(:,1) = [0;(Mu12(i+1:6)-Mu12(i))'];
    end
end
E12 = exp(W12.*t).*exp(W12).*(h12-t).*P1;
C12 = exp(W12.*t).*GAMMA12.*exp(W12.*t)'+GAMMA12.*(h12-t);
dx = 0.2

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for i = 1:6
    if i < 6
        T12(:,i) = sum(mvnpdf(exp(P1.*h12).*P1,GAMMA12).*Mu12.*exp(-Mu12.*h12))';
    else
        T12(:,6) = sum(mvnpdf(Mu12(6)).*Mu12.*P12.*exp(-Mu12.*h12))';
    end
end
z0 = 1;
z = z0*T.^ceil(t./h);

```