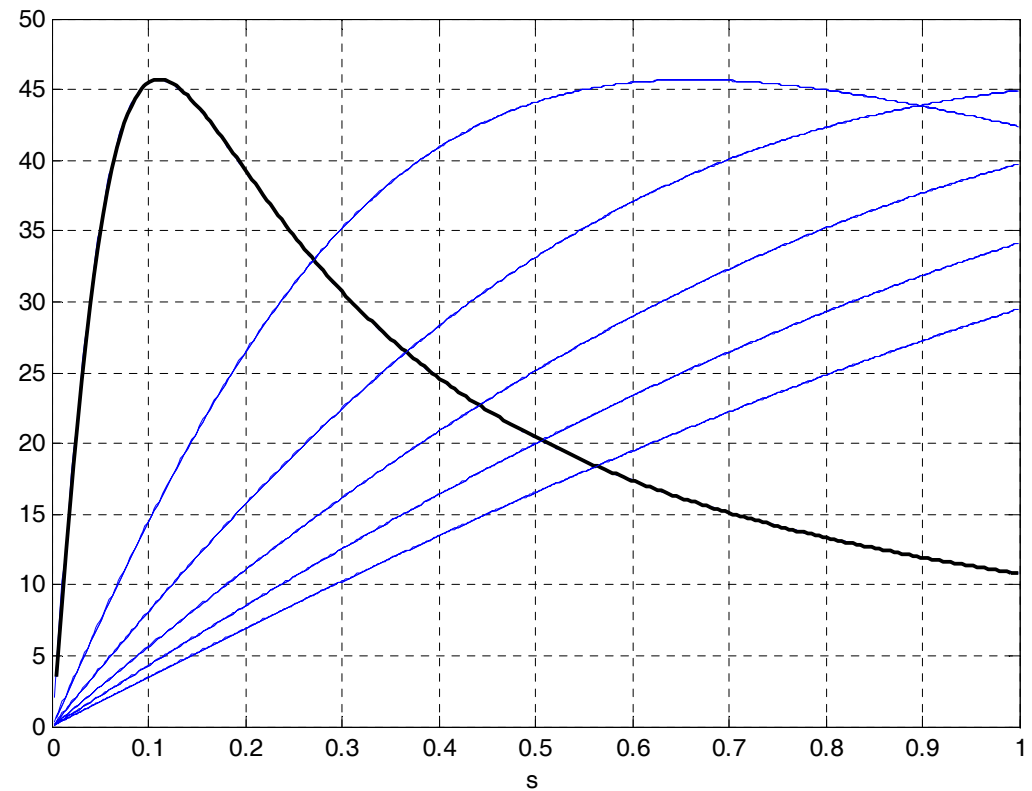


M=f(s) regulacija dodavanjem otpora u kolo rotora

```

clear
r1=1;   x1=5;   r2k1=1;   x21=4;   r0=20;   x0=80;   q=3;   p=2;   u=220;   f=50;   r2dod=0;
syms s z1 z21 z0 i21 pmeh mmeh omega
for r2dod=0:5:25
    z1=r1+i*x1;   z21=(r2k1+r2dod)/s+i*x21;   z0=r0+i*x0;
    i21=u./(z1+z21+(z1+z21)/z0);
    pmeh=3*(abs(i21))^2*(r2k1+r2dod)*(1-s)/s;   omega=(1-s)*2*pi*f/p;   mmeh=pmeh./omega;
    figure(1)
    ezplot(mmeh,[0,1])
    grid on
    hold on, axis auto;
end

```

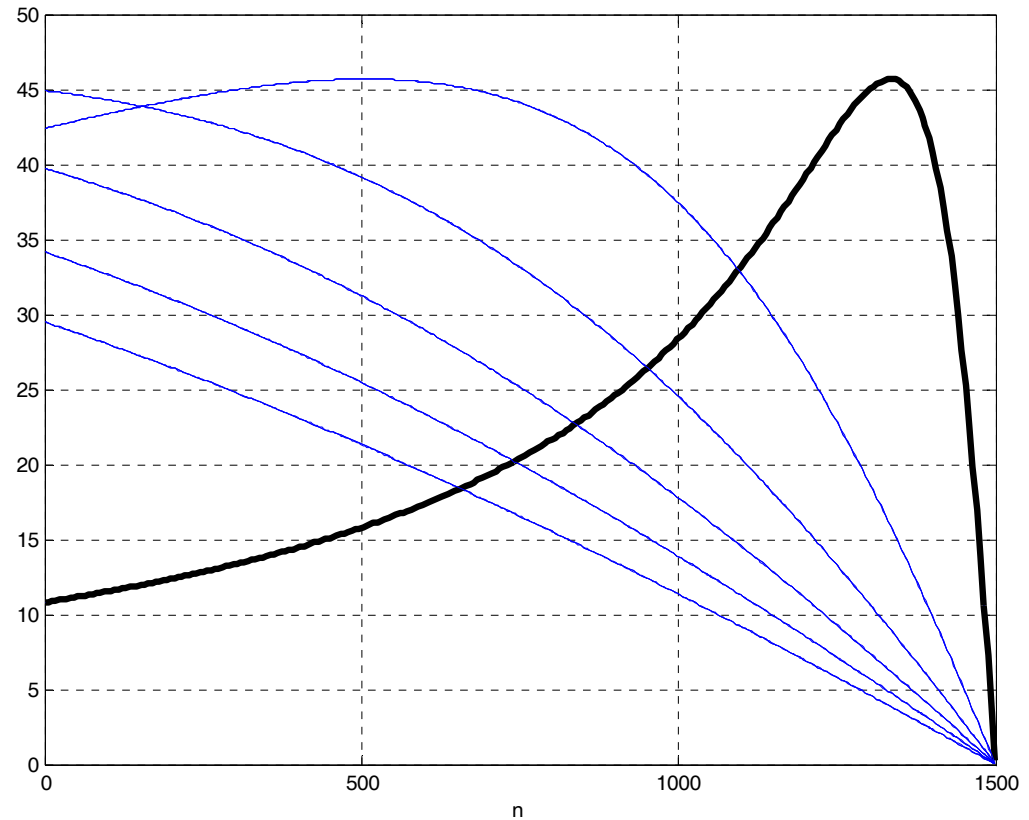


M=f(n) regulacija dodavanjem otpora u kolo rotora

```

clear
r1=1; x1=5; r2k1=1; x21=4; r0=20; x0=80; q=3; p=2; u=220; f=50; r2dod=0;
ns=60*f./p;
syms n s z1 z21 z0 i21 pmeh mmeh omega
for r2dod=0:5:25
    s=(ns-n)/ns;
    z1=r1+i*x1; z21=(r2k1+r2dod)/s+i*x21; z0=r0+i*x0;
    i21=u./(z1+z21+(z1+z21)/z0);
    pmeh=3*(abs(i21))^2*(r2k1+r2dod)*(1-s)/s; omega=(1-s)*2*pi*f/p; mmeh=pmeh./omega;
    figure(2)
    ezplot(mmeh,[0,1500])
    grid on
    hold on, axis auto;
end

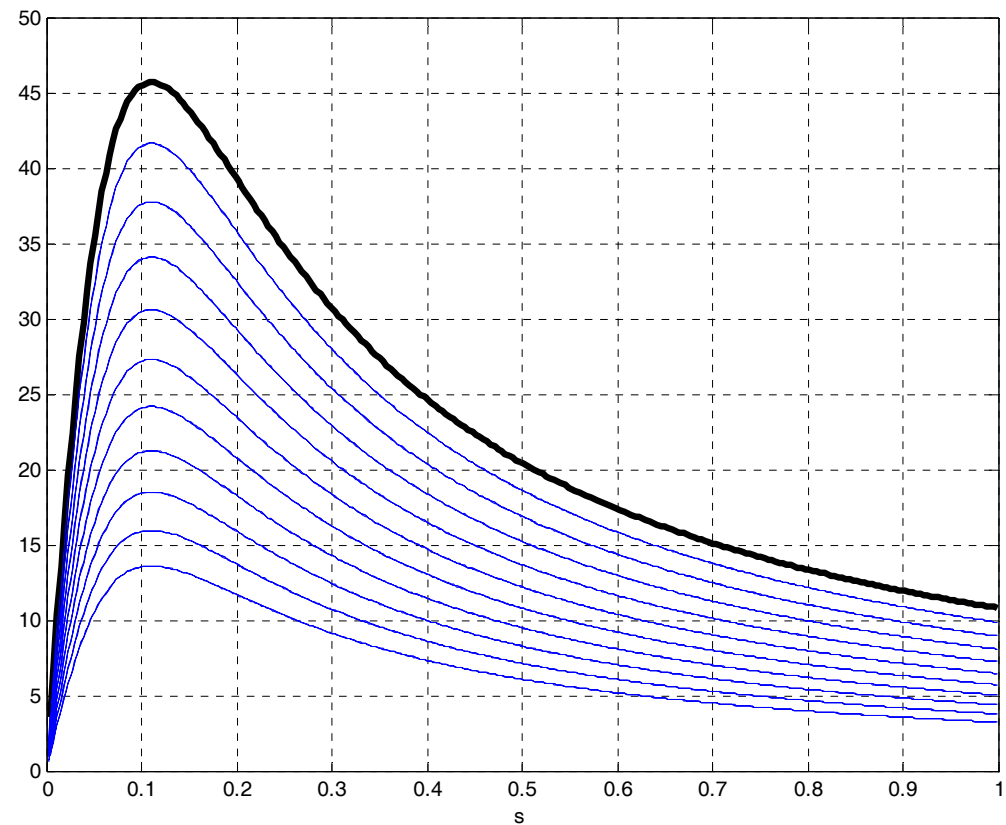
```



M=f(s) regulacija smanjivanjem napona

```

clear
r1=1; x1=5; r2k1=1; x21=4; r0=20; x0=80; q=3; p=2; u=220; f=50; r2dod=0;
syms s ns z1 z21 z0 i21 pmeh mmeh omega
for u=220:-10:120
    z1=r1+i*x1; z21=(r2k1+r2dod)/s+i*x21; z0=r0+i*x0;
    i21=u./(z1+z21+(z1+z21)/z0);
    pmeh=3*(abs(i21))^2*(r2k1+r2dod)*(1-s)/s; omega=(1-s)*2*pi*f/p; mmeh=pmeh./omega;
    figure(3)
    ezplot(mmeh,[0,1])
    grid on
    axis auto; hold on
end
    
```

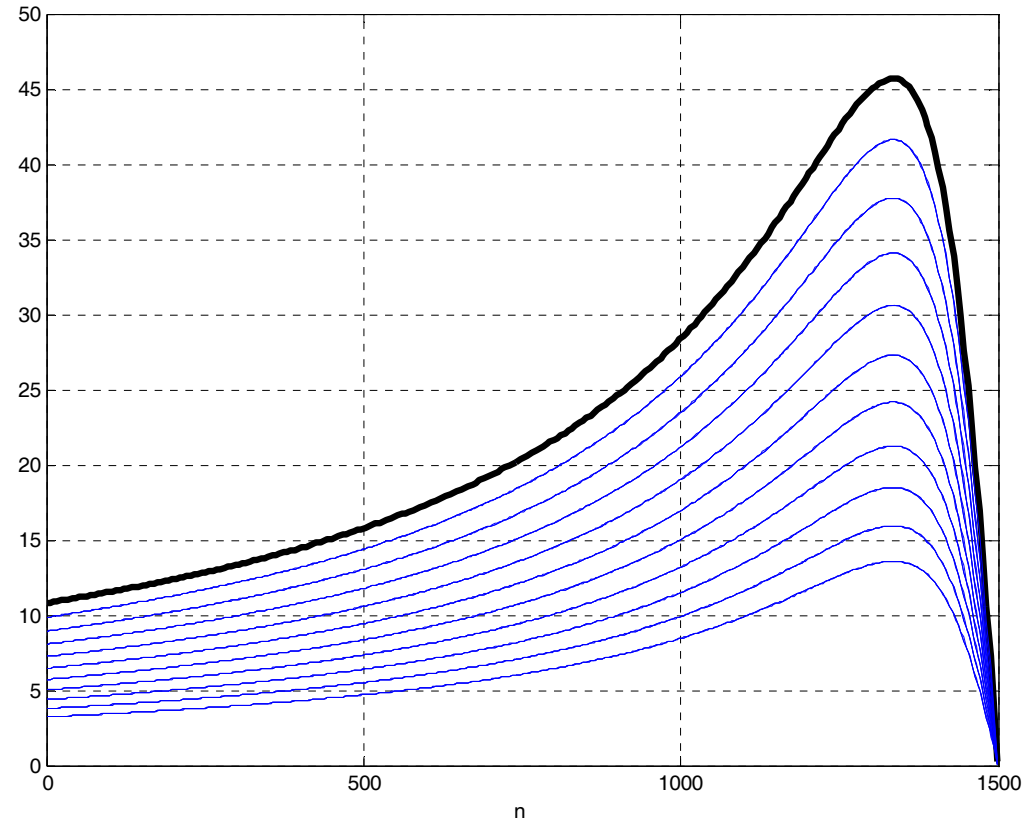


M=f(n) regulacija smanjivanjem napona

```

clear
r1=1; x1=5; r2k1=1; x21=4; r0=20; x0=80; q=3; p=2; u=220; f=50; r2dod=0;
ns=60*f./p;
syms n s z1 z21 z0 i21 pmeh mmeh omega
for u=220:-10:120
    s=(ns-n)/ns;
    z1=r1+i*x1; z21=(r2k1+r2dod)/s+i*x21; z0=r0+i*x0;
    i21=u./(z1+z21+(z1+z21)/z0);
    pmeh=3*(abs(i21))^2*(r2k1+r2dod)*(1-s)/s; omega=(1-s)*2*pi*f/p; mmeh=pmeh./omega;
    figure(4)
    ezplot(mmeh,[0,1500])
    grid on
    axis auto; hold on
end

```

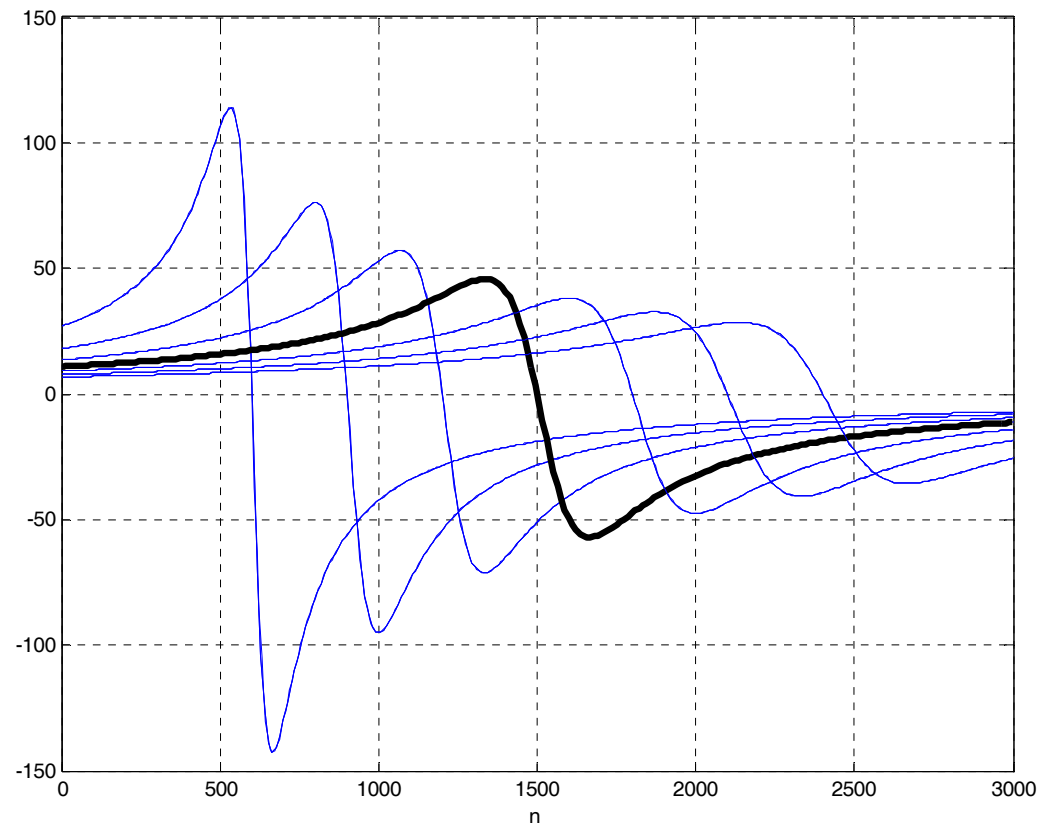


M=f(n) regulacija promenom frekvencije

```

clear
r1=1; x1=5; r2k1=1; x21=4; r0=20; x0=80; q=3; p=2; u=220; f=50; r2dod=0;
ns=60*f./p;
syms n s z1 z21 z0 i21 pmeh mmeh omega
for f=20:10:80
    ns=60*f./p;
    s=(ns-n)/ns;
    z1=r1+i*x1; z21=(r2k1+r2dod)/s+i*x21; z0=r0+i*x0;
    i21=u./(z1+z21+(z1+z21)/z0);
    pmeh=3*(abs(i21))^2*(r2k1+r2dod)*(1-s)/s; omega=(1-s)*2*pi*f/p; mmeh=pmeh./omega;
    figure(5)
    ezplot(mmeh,[0,3000])
    grid on
    hold on; axis auto;
end

```



M=f(n) regulacija promenom frekvencije, zadržavajući $U/f=\text{const.}$

```
clear
r1=1; x1=5; r2k1=1; x21=4; r0=20; x0=80; q=3; p=2; u=220; f=50; r2dod=0;
ns=60*f./p;
syms n s z1 z21 z0 i21 pmeh mmeh omega
for u=220:-10:120
    f=(50/220)*u;
    ns=60*f./p;
    s=(ns-n)/ns;
    z1=r1+i*x1; z21=(r2k1+r2dod)/s+i*x21; z0=r0+i*x0;
    i21=u./(z1+z21+(z1+z21)/z0);
    pmeh=3*(abs(i21))^2*(r2k1+r2dod)*(1-s)/s; omega=(1-s)*2*pi*f/p; mmeh=pmeh./omega;
    figure(6)
    ezplot(mmeh,[0,1500])
    grid on
    axis auto; hold on
end
```

