

# ***Apéndice A***

Lista del programa principal de las estructuras de los filtros  
activos

## Apéndice A

### Listado del programa: active

```
function active_OpeningFcn(hObject, eventdata, handles, varargin)
TIPO = varargin{1};
Bn = varargin{2};
An = varargin{3};
Ws = varargin{4};
% Choose default command line output for active
handles.output = hObject;

% Update handles structure
guidata(hObject, handles);

% UIWAIT makes active wait for user response (see UIRESUME)
% uiwait(handles.figure1);

% --- Executes on button press in pushbutton1.
function pushbutton1_Callback(hObject, eventdata, handles)

global N
global Bn
global An
global Ws
global TIPO

    displayskpb(N,Bn,An,Ws,TIPO);
    close(active(1,2,3,4));
    clc

% --- Executes on button press in pushbutton2.
function pushbutton2_Callback(hObject, eventdata, handles)

global N
global TIPO

    retromulpb(N,TIPO);
    close(active(1,2,3,4));
    clc
% --- Executes on button press in pushbutton3.
function pushbutton3_Callback(hObject, eventdata, handles)

global N
global TIPO
TIPO;

    towthomaspb(N,TIPO);
    close(active(1,2,3,4));
    clc

% --- Executes on button press in pushbutton4.
```

```

function pushbutton4_Callback(hObject, eventdata, handles)

global N
global TIPO

    khnpb(N, TIPO);
    close(active(1,2,3,4));
clc
% --- Executes on button press in pushbutton5.
function pushbutton5_Callback(hObject, eventdata, handles)

close;

% --- Executes on button press in pushbutton12.
function pushbutton12_Callback(hObject, eventdata, handles)

global N
global TIPO

    UAFpb(N, TIPO);
    close(active(1,2,3,4));
clc

% --- Executes on button press in TagbuttonTF.
function TagbuttonTF_Callback(hObject, eventdata, handles)

global N
global Bn
global An
global Ws

FT(N, Bn, An, Ws);

```

### Lista del programa active para chebyshev inverso

```

% --- Executes just before actinvcheb is made visible.
function actinvcheb_OpeningFcn(hObject, eventdata, handles, varargin)

handles.Type = varargin{1};
Bn = varargin{2};
An = varargin{3};
Ws = varargin{4};

% Choose default command line output for actinvcheb
handles.output = hObject;

% Update handles structure
guidata(hObject, handles);

% UIWAIT makes actinvcheb wait for user response (see UIRESUME)
% uiwait(handles.figure1);

```

```
function pushbutton1_Callback(hObject, eventdata, handles)
```

```
global N
global Bn
global An
global Ws
handles.Type
    MFBDF(N,Bn,An,Ws,handles.Type);
    close(actinvcheb(1,2,3,4));
    clc
```

```
function pushbutton2_Callback(hObject, eventdata, handles)
```

```
global N
global TIPO
TIPO = handles.Type
    towthomaspb(N,TIPO);
    close(actinvcheb(1,2,3,4));
    clc
```

```
function pushbutton3_Callback(hObject, eventdata, handles)
```

```
close(actinvcheb(1,2,3,4));
```

```
function TagbuttonTF_Callback(hObject, eventdata, handles)
```

```
global N
global Bn
global An
global Ws
```

```
FT(N,Bn,An,Ws);
```

```
function pushbutton14_Callback(hObject, eventdata, handles)
```

```
global N
global TIPO
```

```
TIPO = handles.Type;
```

```
    KHNB(N,TIPO);
    close(actinvcheb(1,2,3,4));
```

## Lista del programa active para la aproximación elíptica

```
function activeEpb_OpeningFcn(hObject, eventdata, handles, varargin)

N = varargin{1};
bandera = varargin{2};
TIPO = varargin{3};
num = varargin{4};
den = varargin{5};
if TIPO == ' '
    global ws
    ws = varargin{6};
else
    global Ws
    Ws = varargin{6};
end

% Choose default command line output for activeEpb
handles.output = hObject;

% Update handles structure
guidata(hObject, handles);

% UIWAIT makes activeEpb wait for user response (see UIRESUME)
% uiwait(handles.figure1);

function pushbutton3_Callback(hObject, eventdata, handles)

global N
global TIPO
TIPO;
    towthomaspb(N, TIPO);
    close(activeEpb(1,2,3,4,5,6));
    clc

function pushbutton4_Callback(hObject, eventdata, handles)

global N
global TIPO
TIPO;

    KHNB(N, TIPO);
    close(activeEpb(1,2,3,4,5,6));
    clc

function pushbutton5_Callback(hObject, eventdata, handles)

close(activeEpb(1,2,3,4,5,6));
```

```

function pushbutton7_Callback(hObject, eventdata, handles)

global N
global num
global den
global Ws
global TIPO
Bn = num;
An = den;
TIPO;

if TIPO == ' '
    global ws
    Ws = ws;
end
Ws
MFBDF(N,Bn,An,Ws,TIPO);
close(activeEpb(1,2,3,4,5,6));

```

```

function TagbuttonTF_Callback(hObject, eventdata, handles)

global N
global num
global den
global ws

Ws = ws;
FT(N,num,den,Ws);

```

### Lista del programa active para la aproximación Thomson

```

function activeTT_OpeningFcn(hObject, eventdata, handles, varargin)

N = varargin{1};
TIPO = varargin{2};
Bn = varargin{3};
An = varargin{4};
Wc = varargin{5};
bandera = varargin{6};

handles.Type = varargin{1};
% Choose default command line output for activeTT
handles.output = hObject;

% Update handles structure
guidata(hObject, handles);

function pushbutton1_Callback(hObject, eventdata, handles)

```

```

global N
global TIPO
global Bn
global An
global Wc
Ws = Wc;

    switch TIPO
        case 'low'
            displayskpb(N,Bn,An,Ws,TIPO);
            close(activeTT(1,2,3,4,5,6));
            clc
        case {'high',' '}
            Unable;
    end

function pushbutton2_Callback(hObject, eventdata, handles)

global N
global TIPO
global Bn
global An
global Wc
Ws = Wc;

switch TIPO
    case 'low'
        retromulpb(N,TIPO);
        close(activeTT(1,2,3,4,5,6));
        clc
    case {'high',' '}
        MFBDF(N,Bn,An,Ws,TIPO);
        close(activeTT(1,2,3,4,5,6));
end

function pushbutton3_Callback(hObject, eventdata, handles)

global N
global TIPO
global bandera

    towthomaspb(N,TIPO);
    close(activeTT(1,2,3,4,5,6));
    clc

function pushbutton4_Callback(hObject, eventdata, handles)

global N
global TIPO
switch TIPO
    case 'low'
        khnpb(N,TIPO);
        close(activeTT(1,2,3,4,5,6));

```

```

        case {'high', ' '}
            KHNB(N, TIPO);
            close(activeTT(1,2,3,4,5,6));
end
    clc

function pushbutton5_Callback(hObject, eventdata, handles)

close(activeTT(1,2,3,4,5,6));

function TagFT_Callback(hObject, eventdata, handles)

global N
global Bn
global An
global Wc

Ws = Wc;
FT(N,Bn,An,Ws);

function pushbutton15_Callback(hObject, eventdata, handles)

global N
global TIPO
switch TIPO
    case 'low'
        UAFpb(N, TIPO);
        close(activeTT(1,2,3,4,5,6));
        clc
    case {'high', ' '}
        unable;
end

```