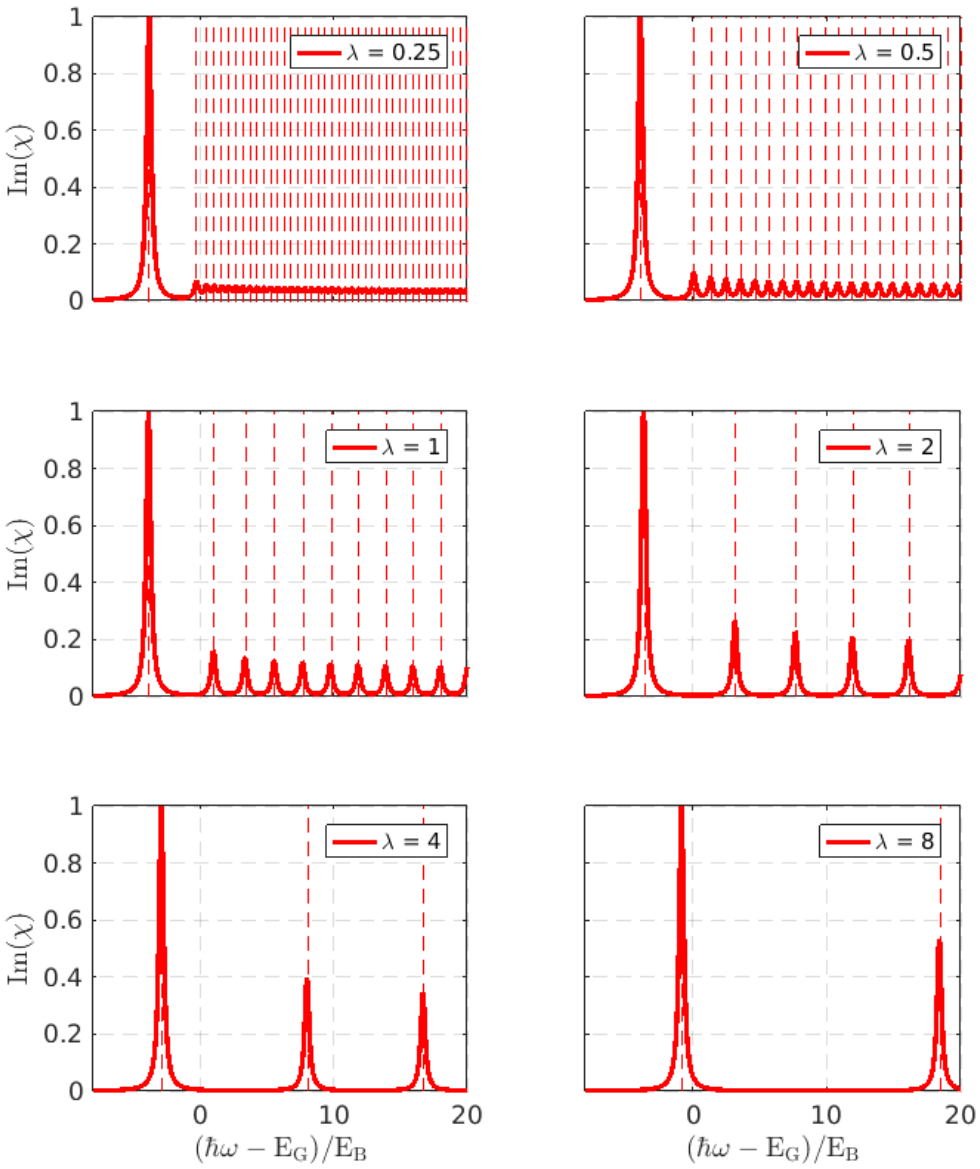
```
figure
EXMX      = 'MX' ;

switch EXMX
    case 'EX'

  %=============================================================================
        Input_ex    = struct(   'I_k',   [0 1 10 100 1000
 10000], 'N_k',   [10 10 10 10 10], ...
                                'I_phi', [-pi pi],
  'N_phi',  50 ) ;

  %=============================================================================
        [X , hw]    = Exzitonenanregung(Input_ex,'Spektrum',
  'Coulomb',-700:50) ;
        [EW, ~ ]    =
 Exzitonenanregung(Input_ex,'Eigenwerte','Coulomb',-700:50) ;

        plot_i      = plot(hw, imag(X)/max(imag(X)), 'r',
   'linewidth', 2.5) ; hold on
        stem_i      = stem(EW(EW<0), ones(1, length(EW(EW<0))), 'r--',
   'linewidth', 1.3, ...
                           'markeredgecolor', 'none') ;

        xlim([min(hw) max(hw)]);    xlabel('$E-E_G$ in
 meV', 'interpreter','latex');
        ylim([0 1]);                ylabel('Im$(\chi)$'
 , 'interpreter','latex');
        grid on;
 set(gca,'GridLineStyle', '--', 'fontsize',13);
    case 'MX'
        %==================================
        lambda      = [0.25 0.5 1 2 4 8]  ;
        phi         = linspace(-8,20,500) ;
        %==================================

        for i=1:6
        ax          = subplot(3,2,i);
        Input_mx    =
 struct( 'n',300, 'lambda',lambda(i), 'phi',phi ) ;

        [X , hw]    = Magnetoexziton(Input_mx,'Spektrum',
  'Coulomb') ;
        [EW, ~ ]    =
 Magnetoexziton(Input_mx,'Eigenwerte','Coulomb') ;

        plot_i      = plot(ax,hw, imag(X)/max(imag(X)), 'r',
  'linewidth', 2.5) ; hold on
        stem_i      = stem(ax,EW, ones(1, length(EW)), 'r--',
  'linewidth', 1.3, ...
                           'markeredgecolor', 'none') ;
```

```
        xlim([min(hw) max(hw)]); ylim([0 1]);

        if i<5
            set(gca,'XTickLabel',[]);
        else; xlabel(ax, '$(\hbar \rm{\omega}- E_G)/E_B
$', 'interpreter','latex'); end

        if mod(i,2)==0
            set(gca,'YTickLabel',[]);
        else; ylabel(ax, 'Im($
\rm{\chi}$)', 'interpreter','latex'); end

        grid(ax,'on'); set(gca,'GridLineStyle', '--', 'fontsize',13);
        legend(plot_i,['\lambda = '
 num2str(lambda(i))],'interpreter','latex');
        end
end
set(gcf, 'Position', [100, 100, 750, 900])
```



Published with MATLAB® R2016a