
```

function [out1, out2] = Magnetoexziton(Input,Method,Potential)

[n, lambda, phi] = deal(Input.n, Input.lambda, Input.phi) ;
dim               = n+1 ;

switch Potential
    case 'Coulomb'
        const      = (2*lambda/pi)^0.5 ;
        VC_ij      = @(n) - const
        *exp(gamma_prefactor(0:n)) .*F32(0:n) ;
    case 'Keldysh'
end

Hmx_ii           = @(n)      diag      ( lambda*(2*(0:n)+1) ) ;
Inh_ii           = @(n,phi) eye(dim)*( -phi      -1i*0.2      ) ;

H                = Hmx_ii(n) + VC_ij(n) ;

switch Method
    case 'Spektrum'
        b          = ones (      dim      ,1) ;
        X          = zeros(length(phi) ,1) ;

        for i=1:length(phi)
            A       = H + Inh_ii(n,phi(i)) ;
            x_n     = linsolve(A,b) ;
            X(i)    = sum(x_n)*lambda/pi ;
        end
        out1       = X ;
        out2       = phi ;
    case 'Eigenwerte'
%           disp('Eigenwerte')
%           % Bestimmung der Eigenwerte (eig_val) samt Normierung der
%           Wellenfunktionen
%           % (states). Beides beginnend mit dem Grundzustand (sort).
        [states, EW] = eig(H,'vector');
        [EW, idx]    = sort(EW);
        states       = states(:,idx);
        EW           = EW(EW<50) ;
        states       = states(:,EW<50) ;
        [nn,g_nn]    = integrate([0 dim],dim,4) ;
        norm         = sqrt(2*pi*(states.^2)'*(nn.*g_nn));
        for i=1:length(EW); states(:,i) = states(:,i)*1/
norm(i)*sign(states(1,i)); end

%           % Anzeigen der Grundzustandsenergie
%           disp(EW(1))
        out1        = EW ;
        out2        = states ;
end

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