平衡状态，每个格点加一个虚部，计算能隙方程，获得有效的吸引势的大小

1. , int=integral(@(EF) Gless21(EF),-4,0.7,"ArrayValued",true,'RelTol',1e-6,'AbsTol',1e-6)

|  |  |
| --- | --- |
|  |  |
| 1.34284365201428e-16 - 1.03470270122455i  2.67195208101616e-16 - 1.29523134392932i  -1.11556762860845e-16 - 1.07166127530667i  -2.23130918781462e-16 - 1.00728931011118i  -6.55732404277796e-17 - 1.08629543462299i  -1.96535290838401e-16 - 1.10386884722798i  -1.25212043561022e-17 - 1.07335391540304i  -3.83065942628480e-16 - 1.06885372411264i  -1.61814856481937e-16 - 1.08103712505653i  1.10729144041974e-16 - 1.08192720990650i  1.71022363253434e-16 - 1.07696549443703i  1.41690526405668e-17 - 1.07694277930474i  1.36456812943182e-16 - 1.07906107961625i  1.13869347090614e-16 - 1.07897969737341i  -8.23379405865833e-17 - 1.07785196546888i  -6.84523136621718e-17 - 1.07785196546888i  -2.62149352157153e-16 - 1.07897969737341i  4.37790329259144e-17 - 1.07906107961625i  -1.40761137002467e-16 - 1.07694277930474i  -1.96377452165513e-16 - 1.07696549443703i  -2.62013424382142e-16 - 1.08192720990650i  3.98132803103019e-17 - 1.08103712505653i  1.00392716719071e-16 - 1.06885372411264i  -7.61765621643279e-17 - 1.07335391540304i  -3.85435504542637e-17 - 1.10386884722798i  1.69352860642396e-16 - 1.08629543462299i  2.87498449434962e-16 - 1.00728931011118i  2.77712942608143e-17 - 1.07166127530667i  -3.05466851786272e-16 - 1.29523134392932i  -1.73794191848438e-16 - 1.03470270122455i | 1.82173641754590  1.45530418252196  1.75890986787264  1.87131499682631  1.73521450249680  1.70759016969031  1.75613613096672  1.76352998509573  1.74365481856629  1.74222034060570  1.75024696881232  1.75028388543612  1.74684791042989  1.74697966675599  1.74880749169845  1.74880749169845  1.74697966675599  1.74684791042989  1.75028388543612  1.75024696881232  1.74222034060570  1.74365481856630  1.76352998509573  1.75613613096672  1.70759016969031  1.73521450249680  1.87131499682632  1.75890986787264  1.45530418252196  1.82173641754590 |
|  | Mean value: s1.7399 |
|  | Standard value: 1.7480 |

1. , int=integral(@(EF) Gless21(EF),-4,0.,"ArrayValued",true,'RelTol',1e-4,'AbsTol',1e-13)

|  |  |
| --- | --- |
|  |  |
| -7.93464974471819e-17 - 1.03458028163196i  -1.24610658561476e-16 - 1.29503941538751i  -9.10243560082760e-17 - 1.07152645127445i  8.99711193321058e-18 - 1.00718018010237i  6.09450691684118e-17 - 1.08615897856281i  1.23363810970662e-16 - 1.10372320927748i  1.78827736280710e-16 - 1.07322106196039i  1.93491350193487e-16 - 1.06872390979141i  6.17978816488136e-17 - 1.08090141517014i  -1.68502633493161e-16 - 1.08179061727952i  -8.49026659143374e-17 - 1.07683160372758i  4.94002879541975e-19 - 1.07680908602764i  2.78545491750963e-17 - 1.07892610130958i  -1.77919374745964e-16 - 1.07884469820774i  -1.68138305044051e-16 - 1.07771771514687i  1.89580183474591e-16 - 1.07771771514687i  3.02193398596189e-18 - 1.07884469820774i  -4.79224654055624e-17 - 1.07892610130958i  -1.43669088261737e-16 - 1.07680908602764i  6.98852503762110e-17 - 1.07683160372758i  8.19743134407556e-17 - 1.08179061727952i  -5.53298560661289e-17 - 1.08090141517014i  -1.81265799682319e-16 - 1.06872390979140i  -1.64431811177403e-16 - 1.07322106196039i  -1.12868504840994e-16 - 1.10372320927748i  -9.58049137059147e-17 - 1.08615897856281i  -4.28661392605678e-17 - 1.00718018010237i  1.09214545728796e-16 - 1.07152645127446i  8.38891844417517e-17 - 1.29503941538751i  4.12297002070568e-17 - 1.03458028163196i | 1.82195197958009 + 1.39733484837542e-16i  1.45551986276020 + 1.40052330834722e-16i  1.75913118142062 + 1.49435212478835e-16i  1.87151775758960 - 1.67182149556531e-17i  1.73543250054243 - 9.73762182794051e-17i  1.70781548880159 - 1.90883570593035e-16i  1.75635352208867 - 2.92656131710691e-16i  1.76374419518862 - 3.19324048611938e-16i  1.74387373880639 - 9.97016947232588e-17i  1.74244032259602 + 2.71407219079476e-16i  1.75046459040474 + 1.38015182503512e-16i  1.75050119525598 - 8.03069589882647e-19i  1.74706644863439 - 4.51038752761475e-17i  1.74719827171168 + 2.88141958315778e-16i  1.74902533906757 + 2.72871227647809e-16i  1.74902533906757 - 3.07669197621894e-16i  1.74719827171168 - 4.89404809262242e-18i  1.74706644863439 + 7.75991343098273e-17i  1.75050119525598 + 2.33553852755152e-16i  1.75046459040474 - 1.13603330132271e-16i  1.74244032259602 - 1.32036039945973e-16i  1.74387373880639 + 8.92664970287527e-17i  1.76374419518862 + 2.99147889409824e-16i  1.75635352208867 + 2.69096834698077e-16i  1.70781548880159 + 1.74643949810126e-16i  1.73543250054243 + 1.53074240731227e-16i  1.87151775758960 + 7.96528192376731e-17i  1.75913118142062 - 1.79298152301985e-16i  1.45551986276020 - 9.42846779603126e-17i  1.82195197958009 - 7.26077378850175e-17i |
|  | Mean value: 1.7401 + 0.0000i |
|  | Standard value: 1.7480 |

上下接上导线，

再平衡状态，计算能隙方程，获得有效的吸引势的大小

~~同时验证流是否自动满足守恒~~