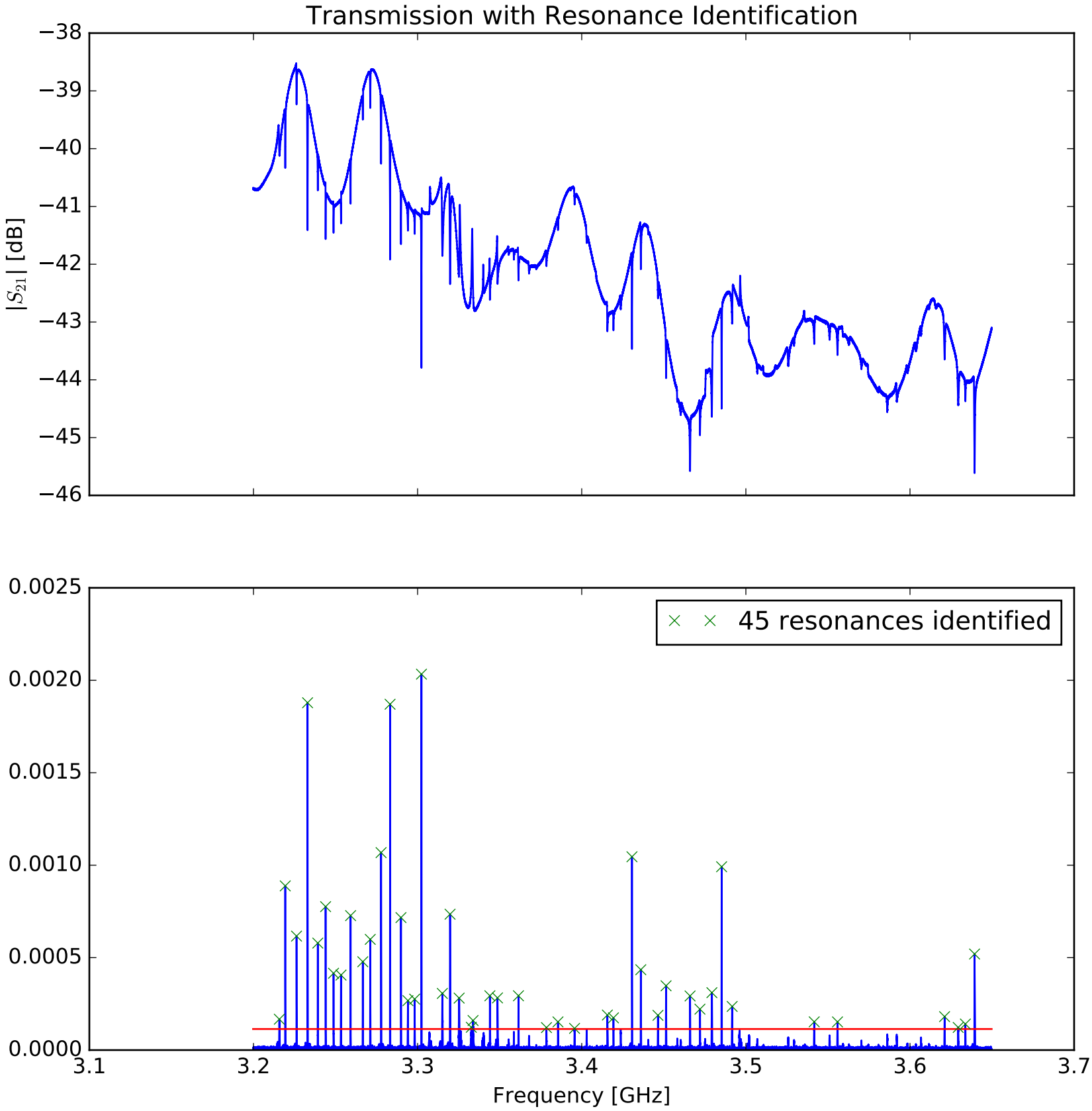
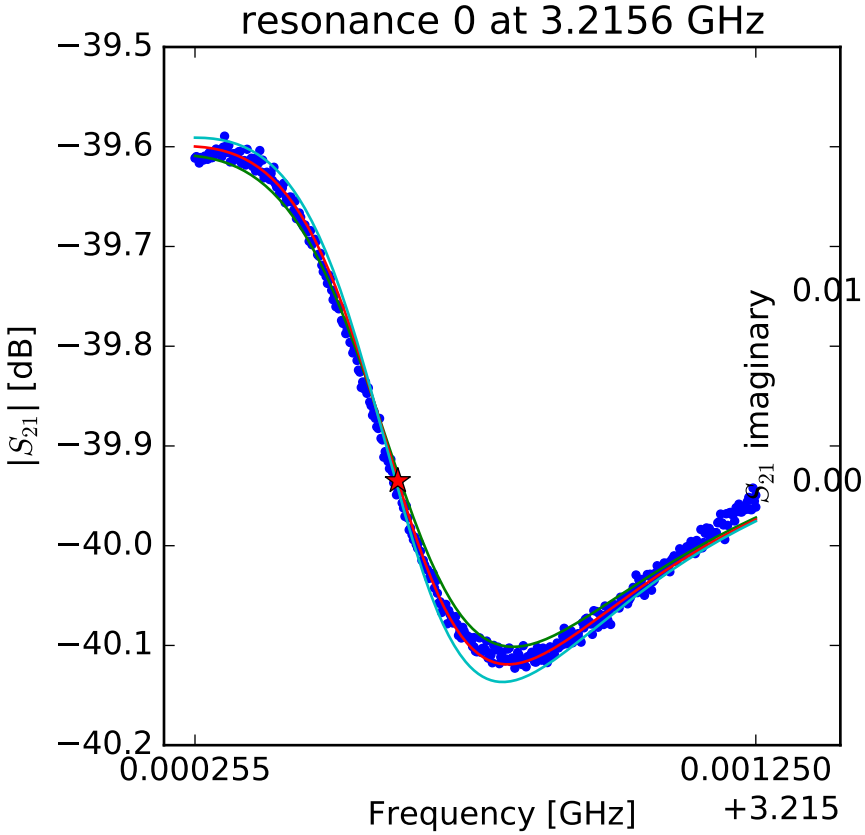
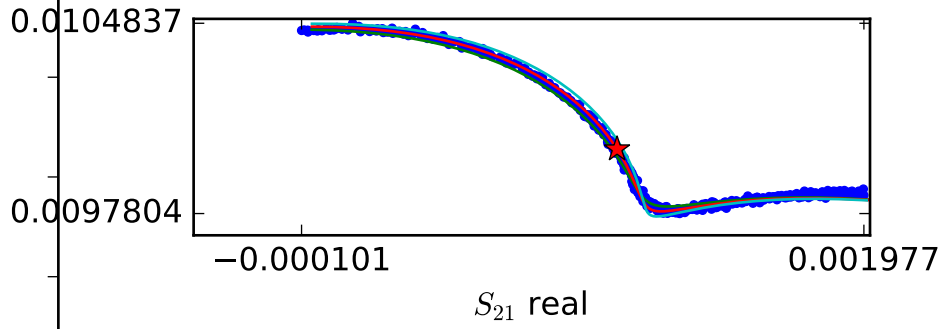
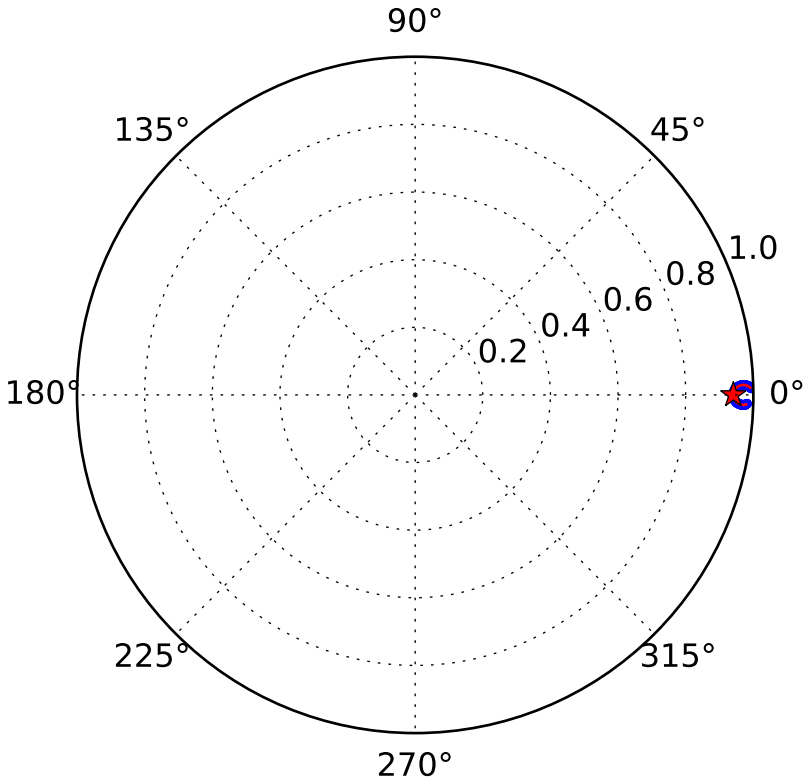
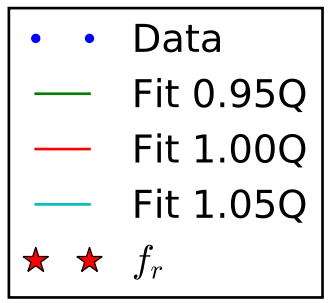

Transmission with Resonance Identification
−38
−39
−40
−41
−42
−43
−44
−45
−46
$|S_{21}|$ [dB]
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
45 resonances identified
3.1
3.2
3.3
3.4
3.5
3.6
3.7
Frequency [GHz]



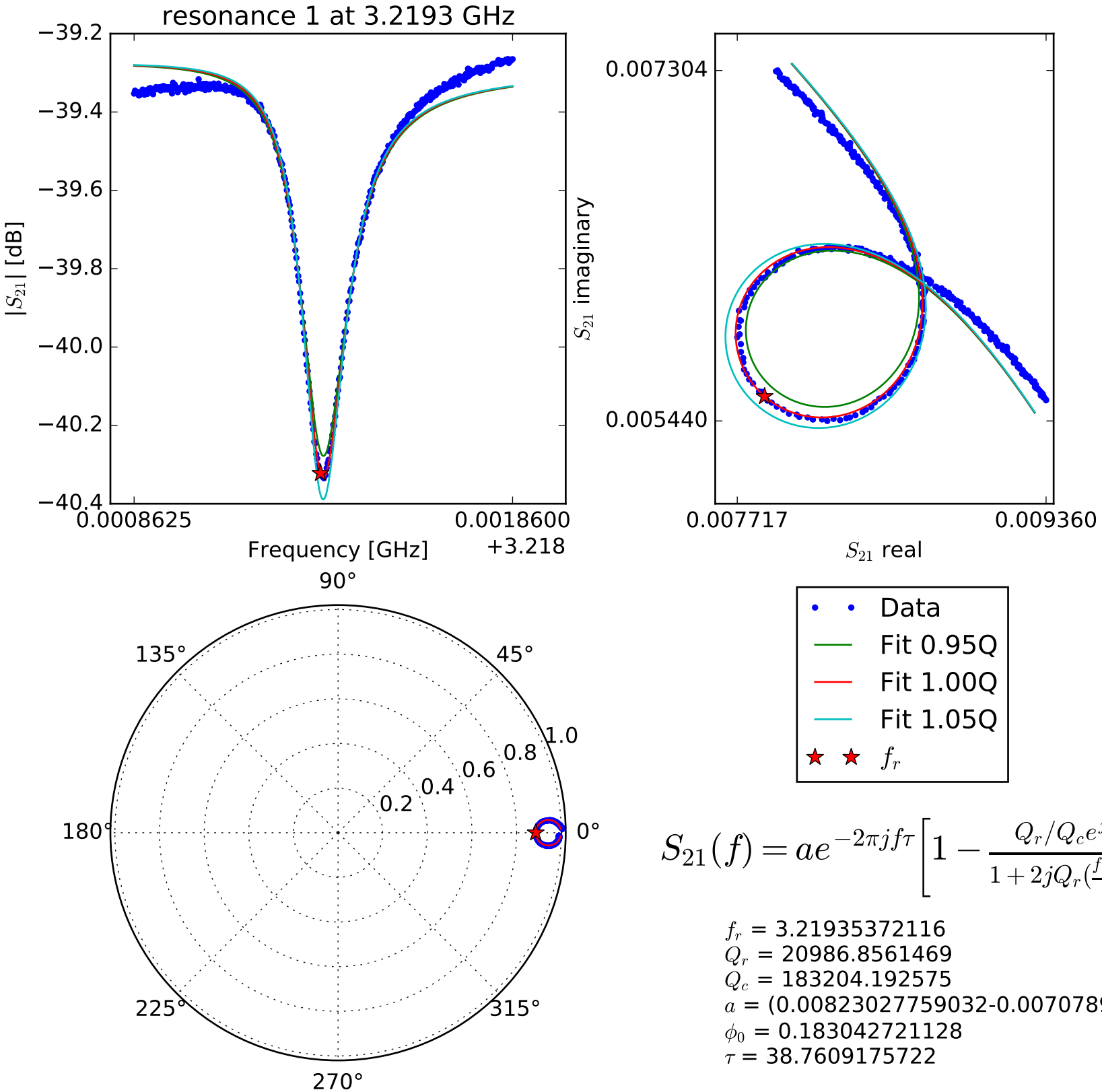



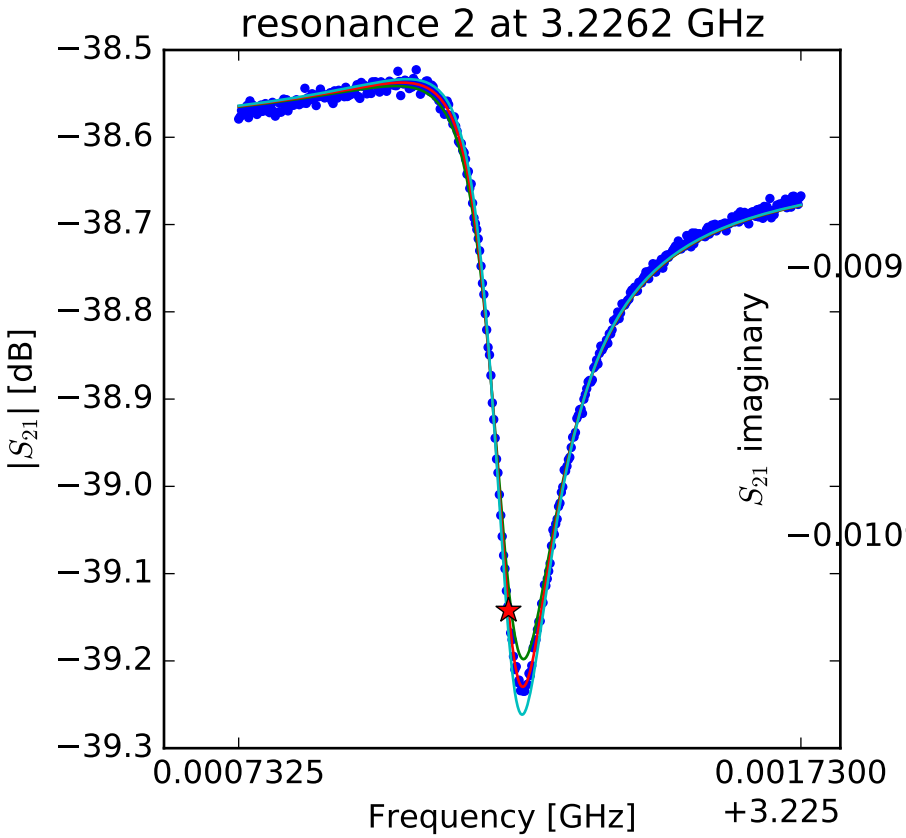

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

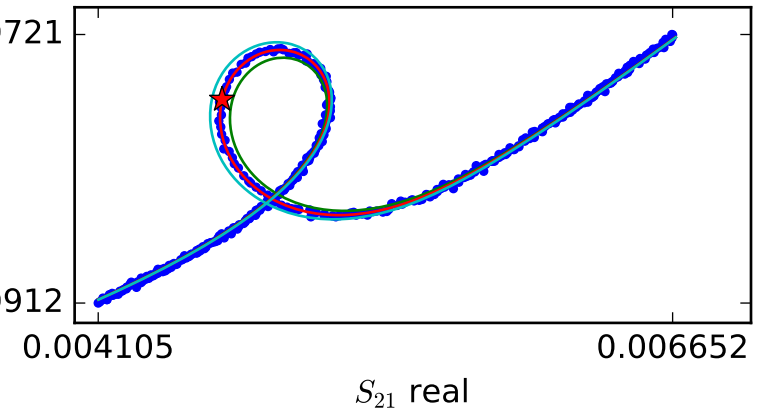
$f_r$ = 3.21561477246
$Q_r$ = 5923.13621374
$Q_c$ = 100041.003473
$a$ = (-0.00491133605057-0.00901820570594j)
$\phi_0$ = 1.21832423315
$\tau$ = 37.4511493908

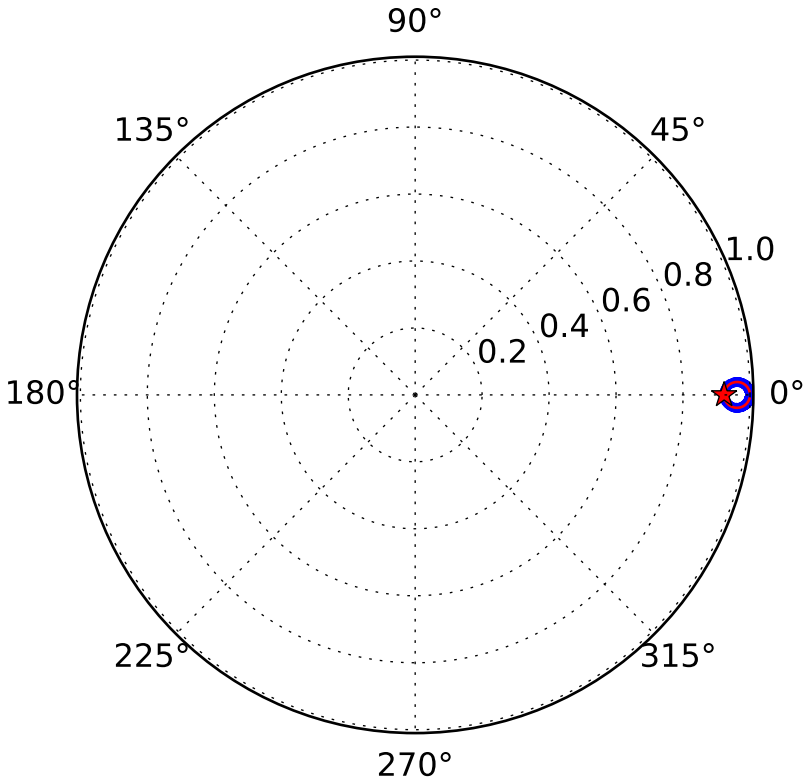


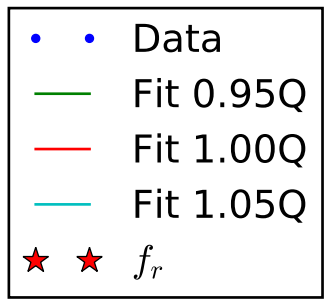

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.21935372116
$Q_r$ = 20986.8561469
$Q_c$ = 183204.192575
$a$ = (0.00823027759032-0.00707890201883j)
$\phi_0$ = 0.183042721128
$\tau$ = 38.7609175722



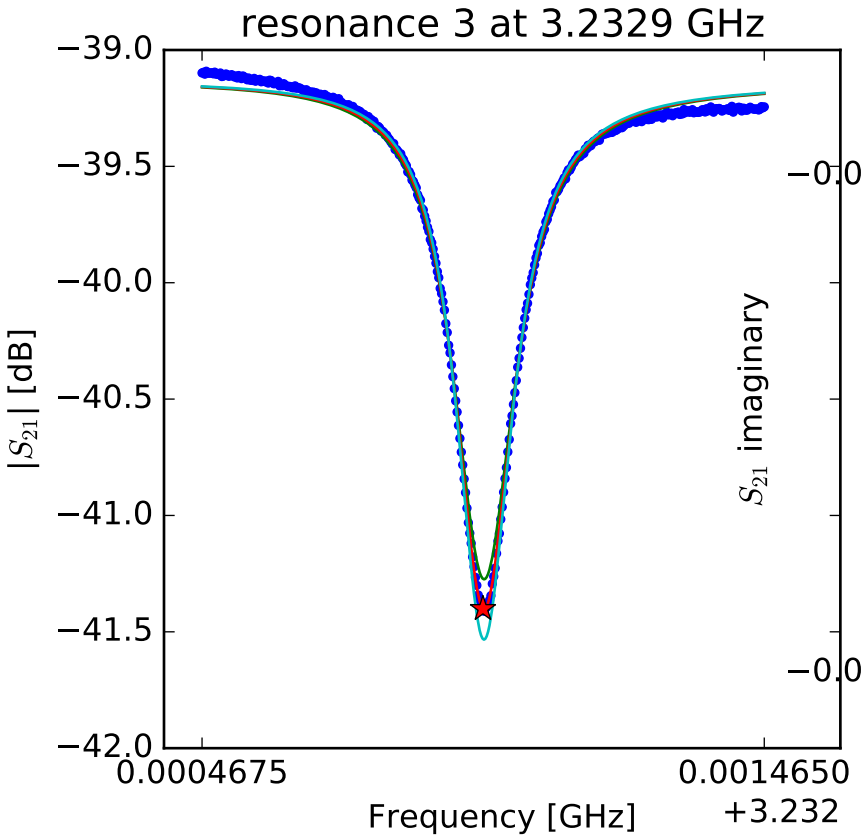



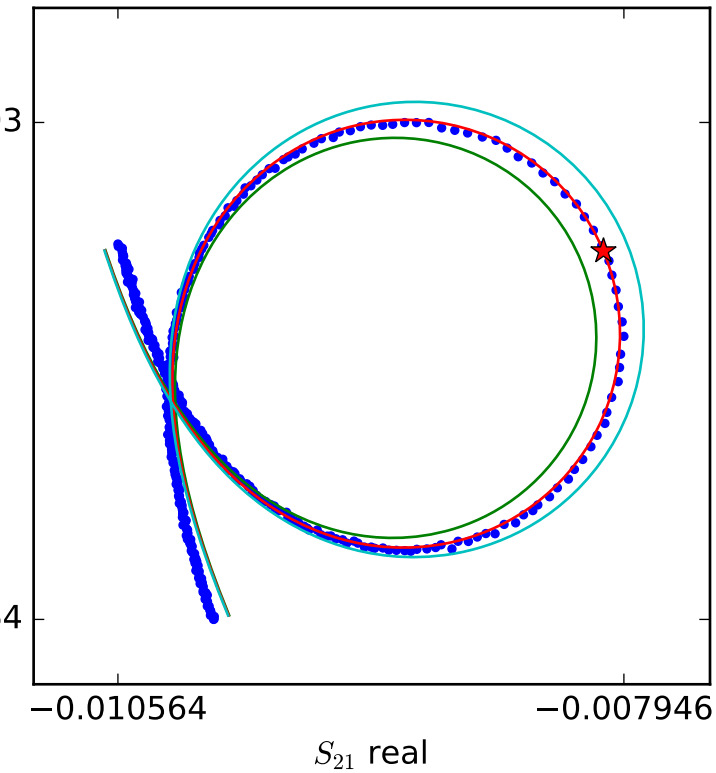



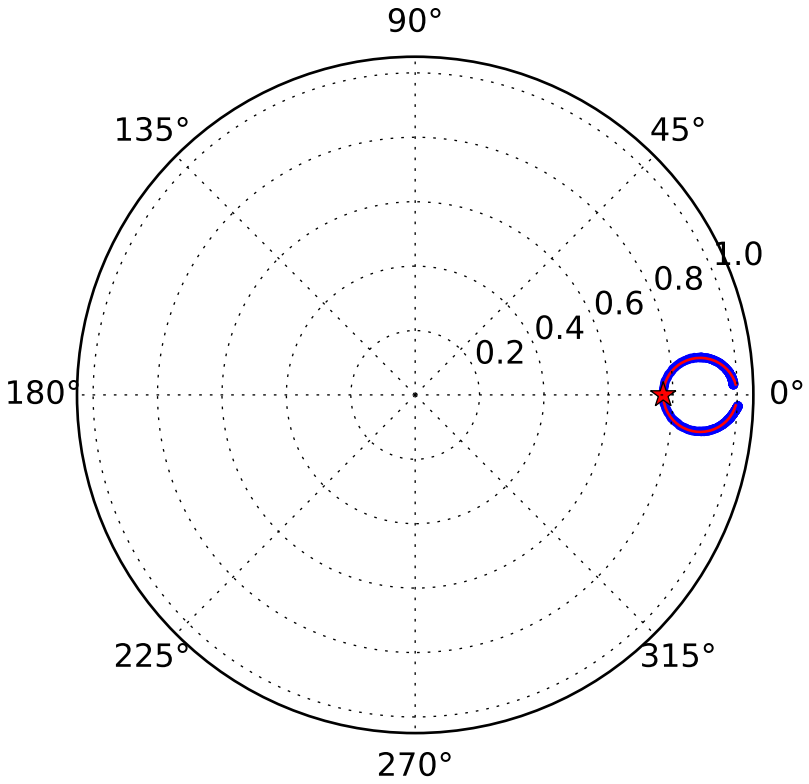



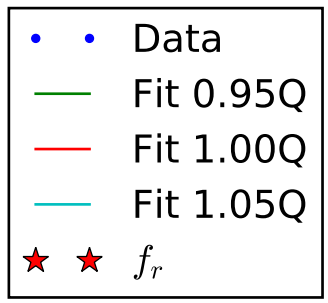

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.22621121254
$Q_r$ = 23285.5163815
$Q_c$ = 301193.831186
$a$ = (0.0114016964442+0.00275872354405j)
$\phi_0$ = 0.676396256272
$\tau$ = 40.9800564308



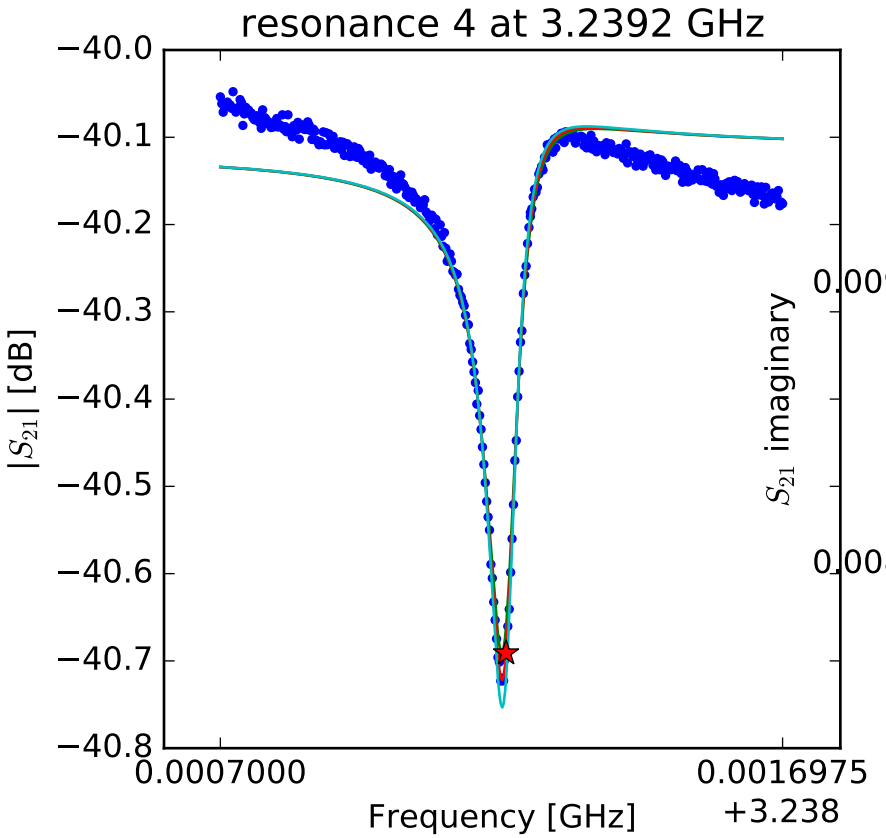



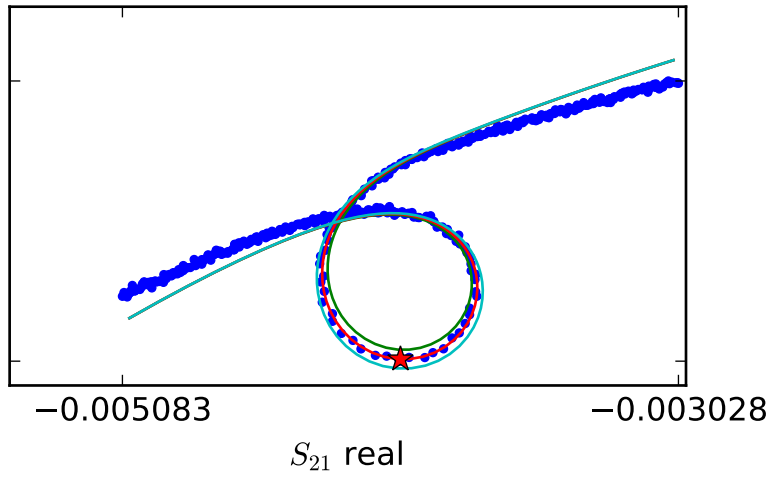



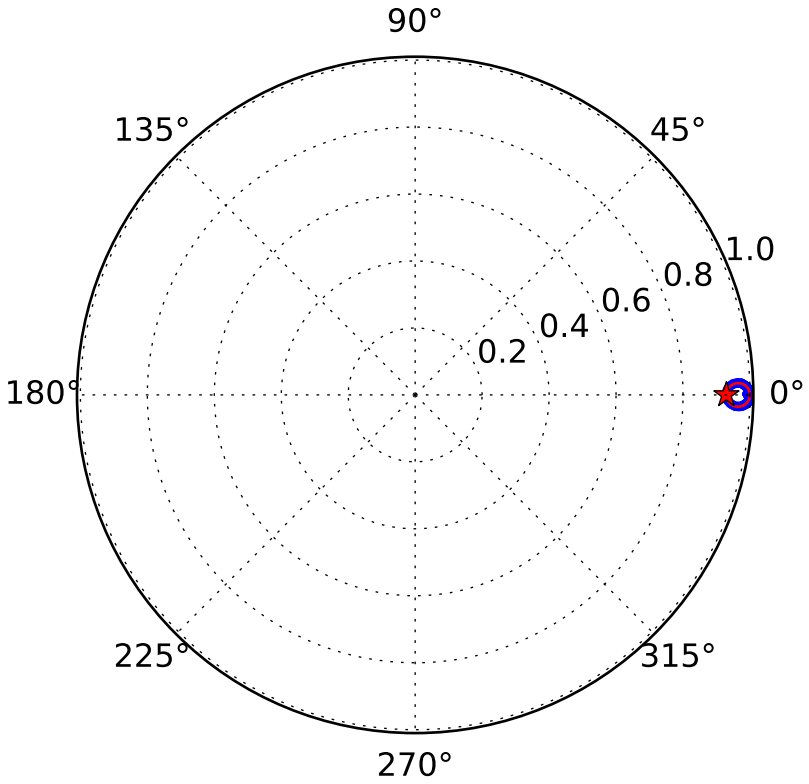



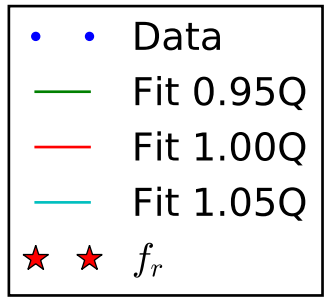

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.23296587935
$Q_r$ = 22298.72793
$Q_c$ = 96984.1040226
$a$ = (0.0102993478168+0.00399334302578j)
$\phi_0$ = 0.048857853909
$\tau$ = 39.4387154273



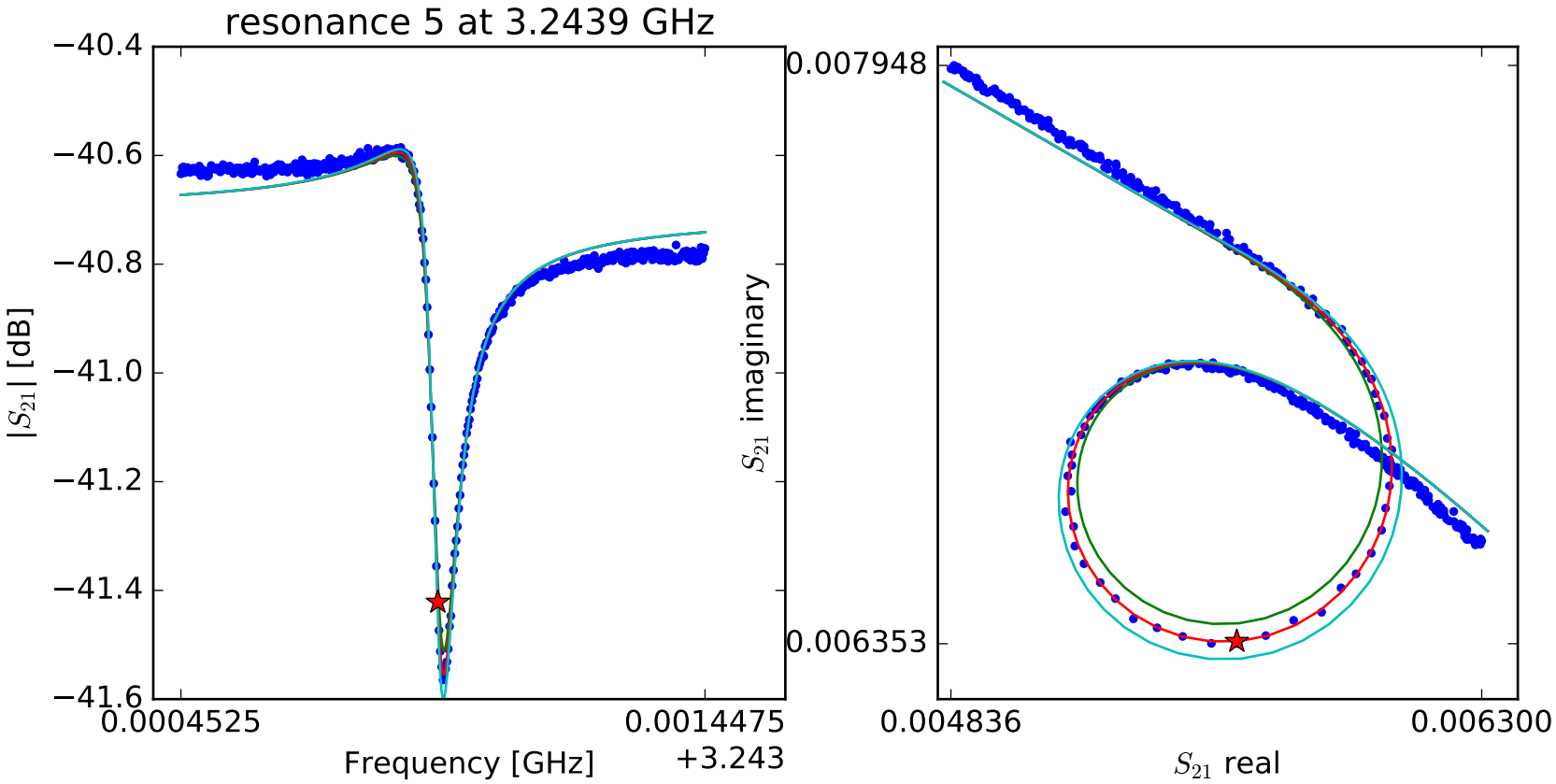



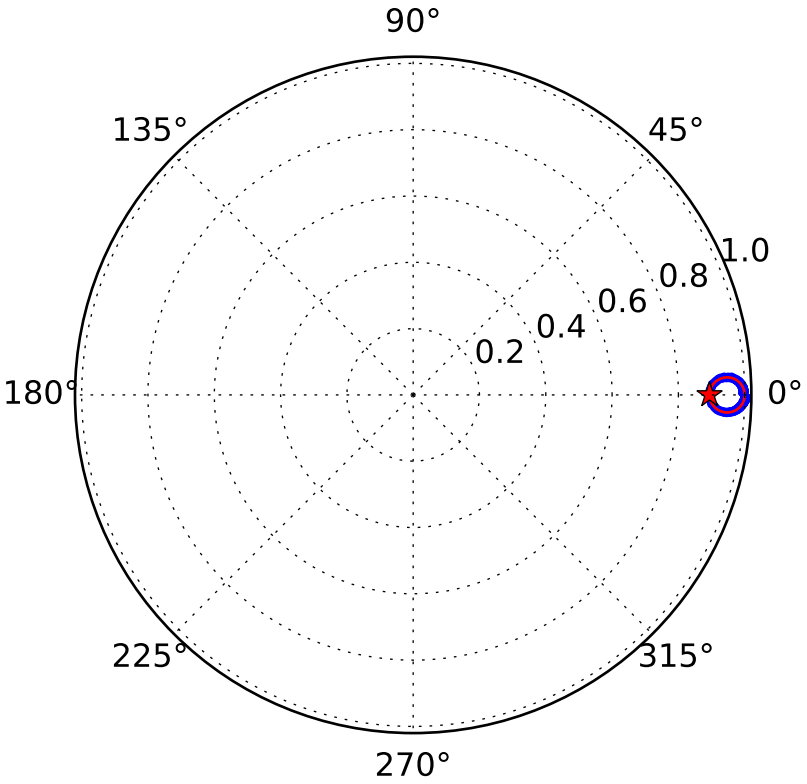



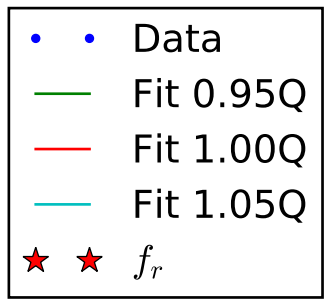




$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.23920690315
$Q_r$ = 49204.2526091
$Q_c$ = 697913.670998
$a$ = (-0.0098307062592-0.000852290459854j)
$\phi_0$ = -0.415009456979
$\tau$ = 37.4154063952

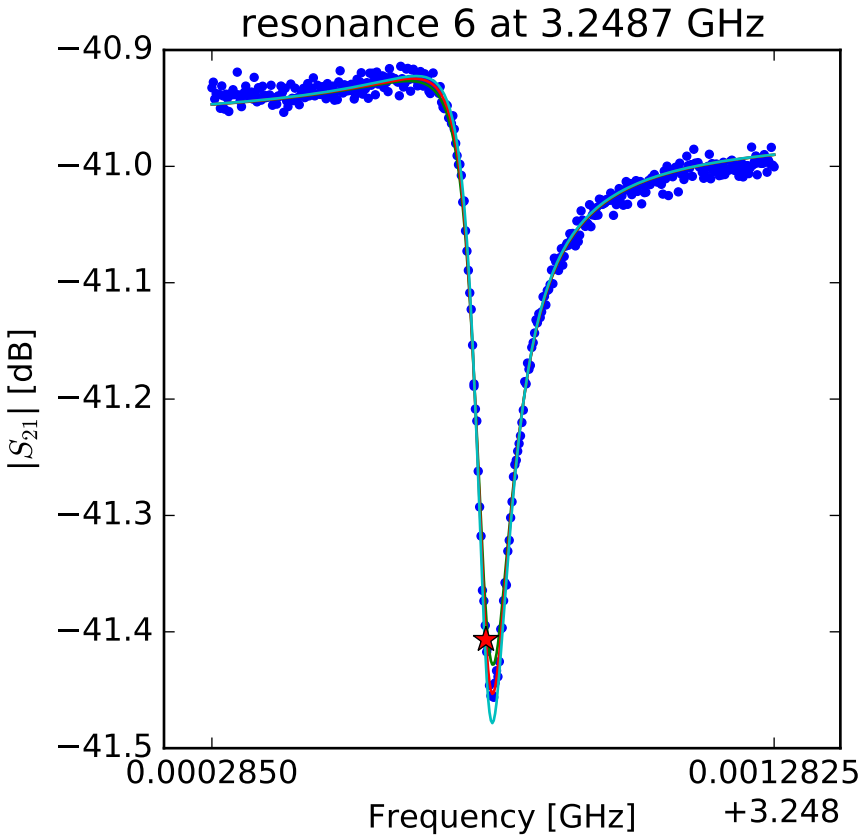


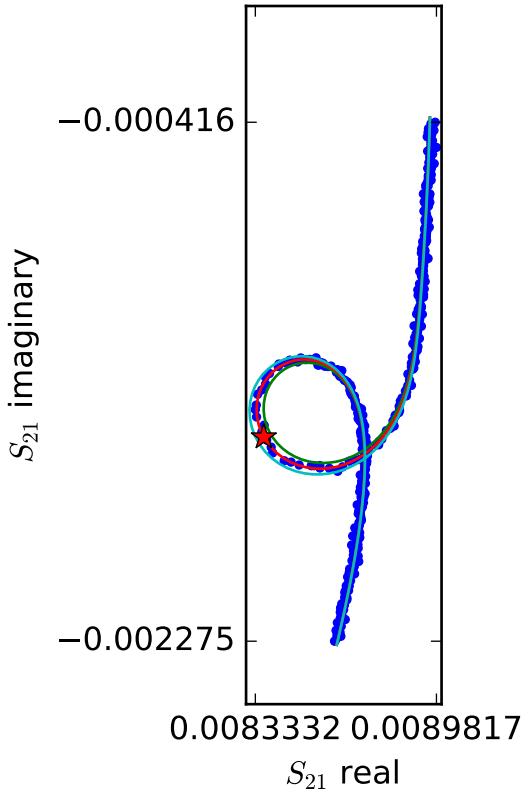



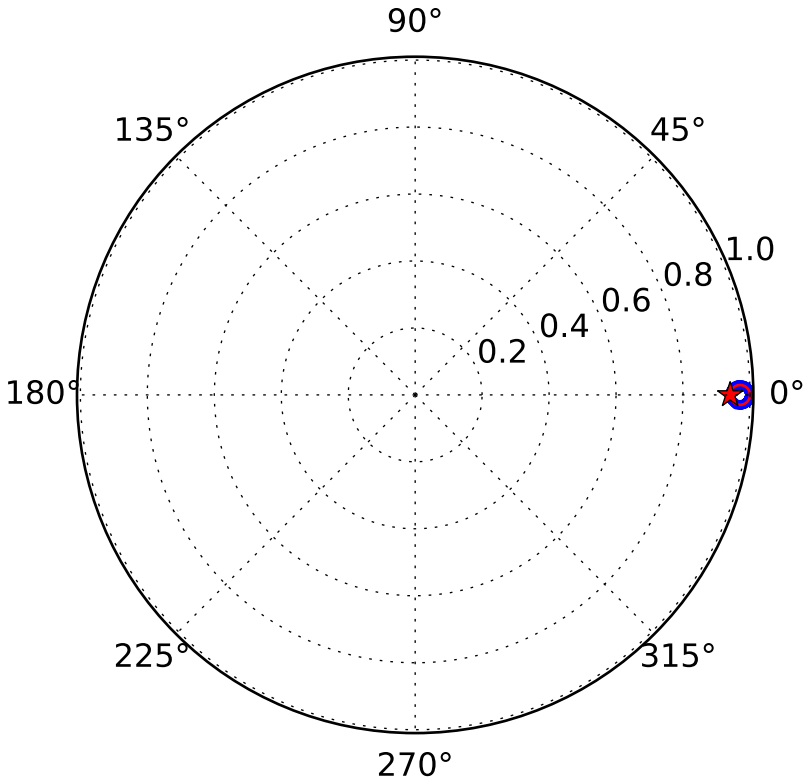



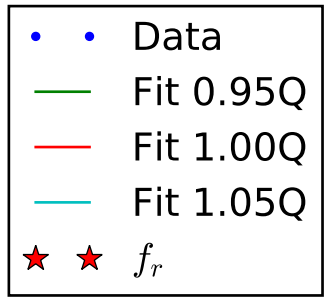

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.24394026211
$Q_r$ = 55560.5062602
$Q_c$ = 523537.330761
$a$ = (0.00277236341418-0.00879356318258j)
$\phi_0$ = 0.692523404575
$\tau$ = 35.3434810861



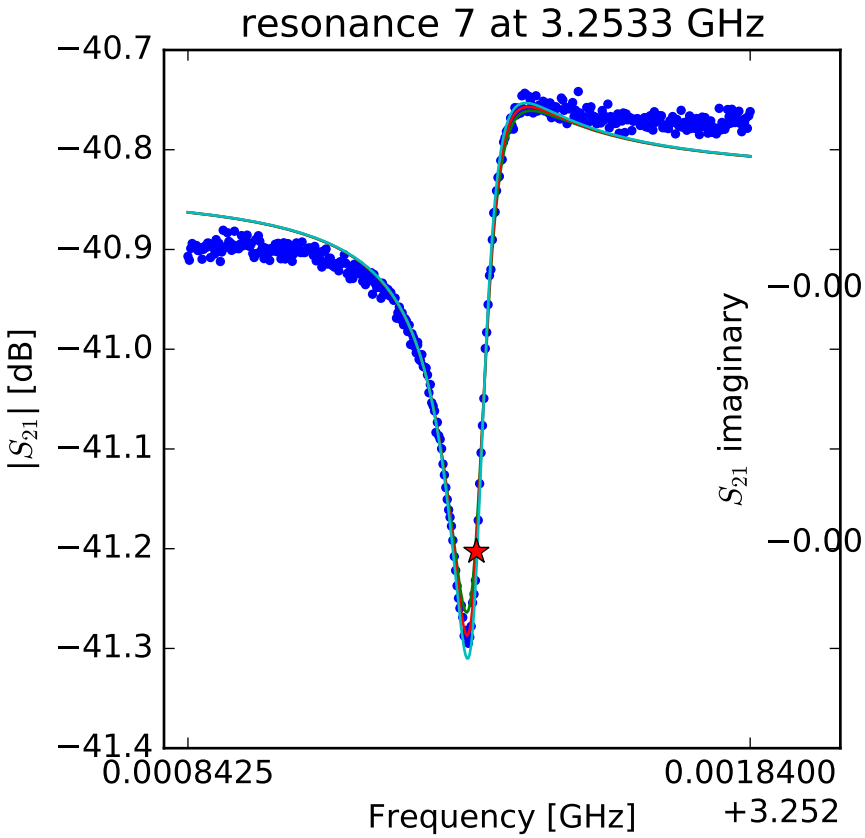



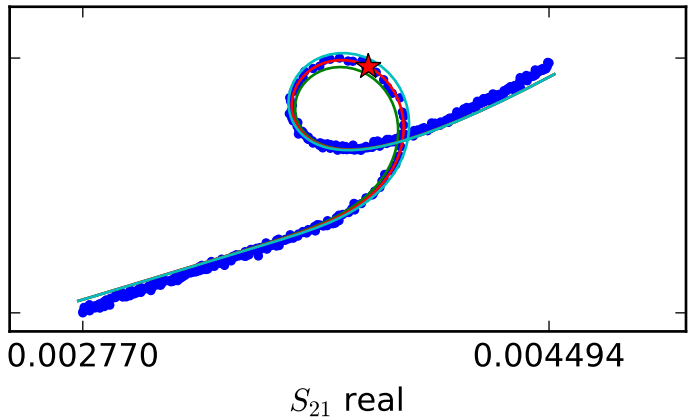



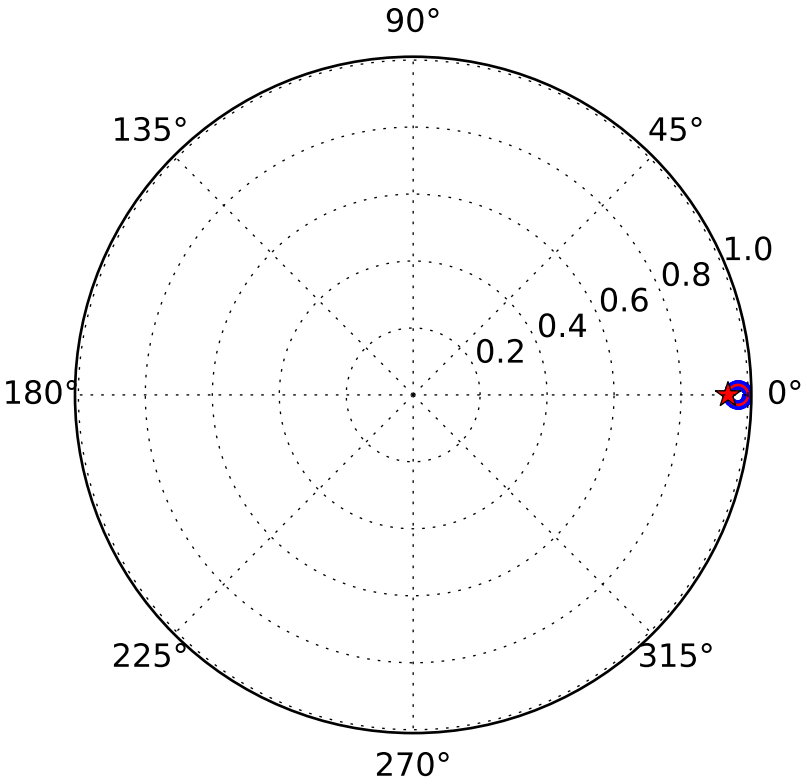



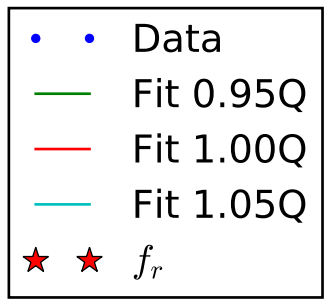

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.24877117189
$Q_r$ = 41405.5832088
$Q_c$ = 697505.137597
$a$ = (-0.00238806801921+0.00862261228855j)
$\phi_0$ = 0.569607856357
$\tau$ = 35.4954789202



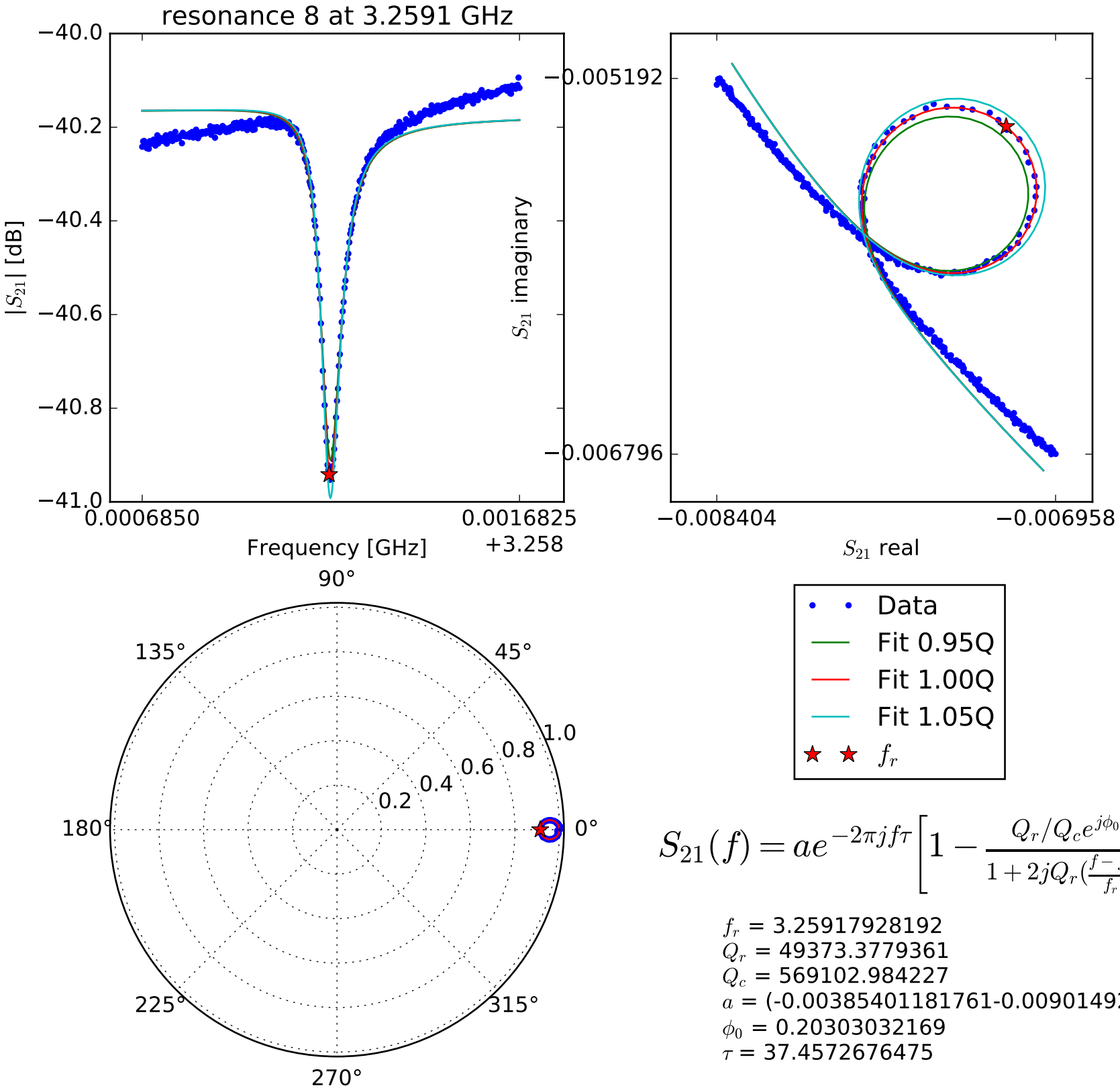



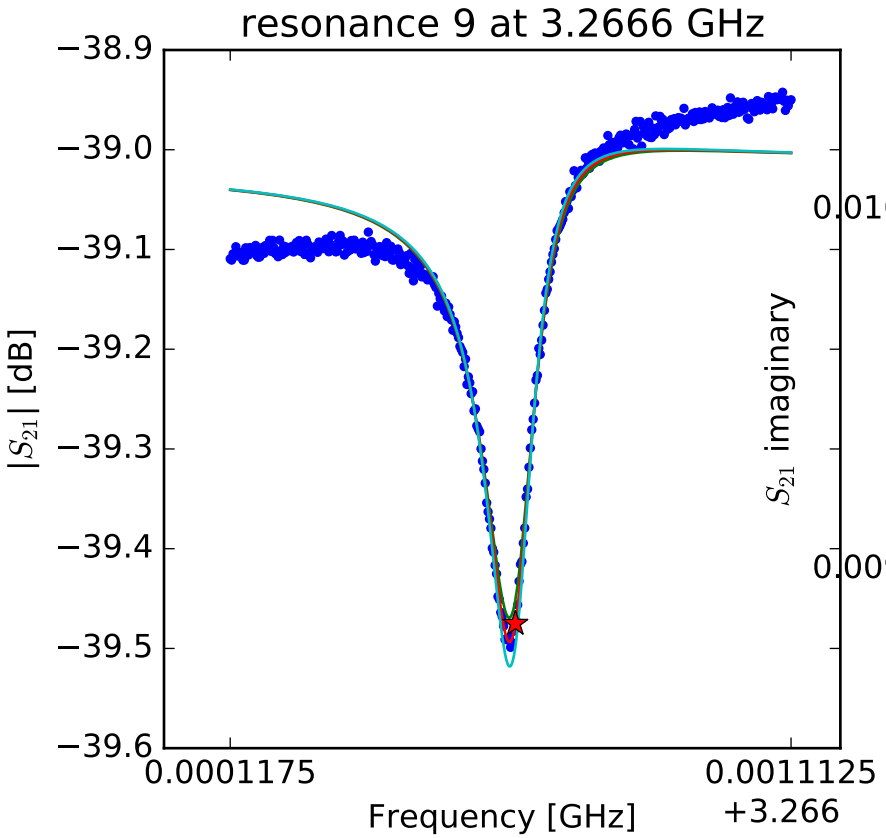

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

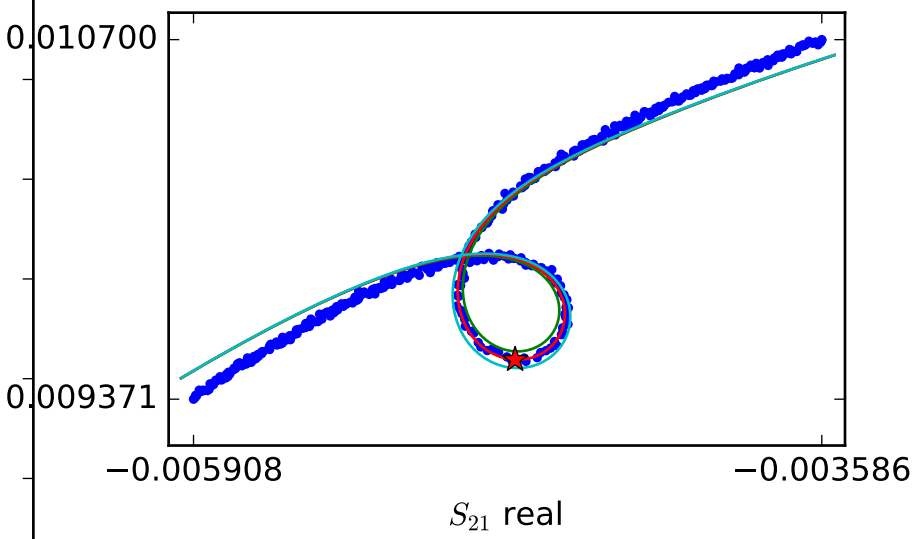
$f_r$ = 3.25335427612
$Q_r$ = 41865.7576214
$Q_c$ = 700817.970794
$a$ = (-0.000245249291737-0.00908209183412j)
$\phi_0$ = -0.777205104938
$\tau$ = 35.3266976018

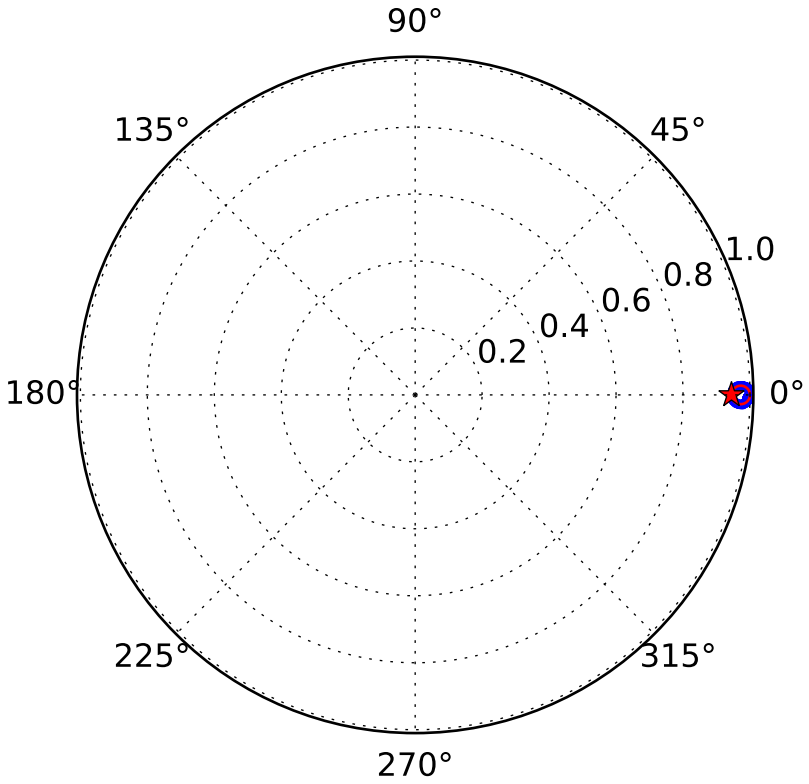


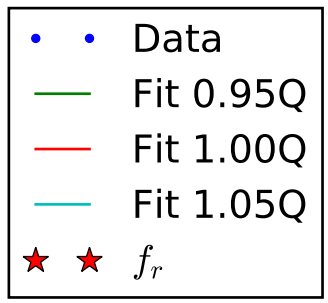

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.25917928192
$Q_r$ = 49373.3779361
$Q_c$ = 569102.984227
$a$ = (-0.00385401181761-0.0090149239605j)
$\phi_0$ = 0.20303032169
$\tau$ = 37.4572676475



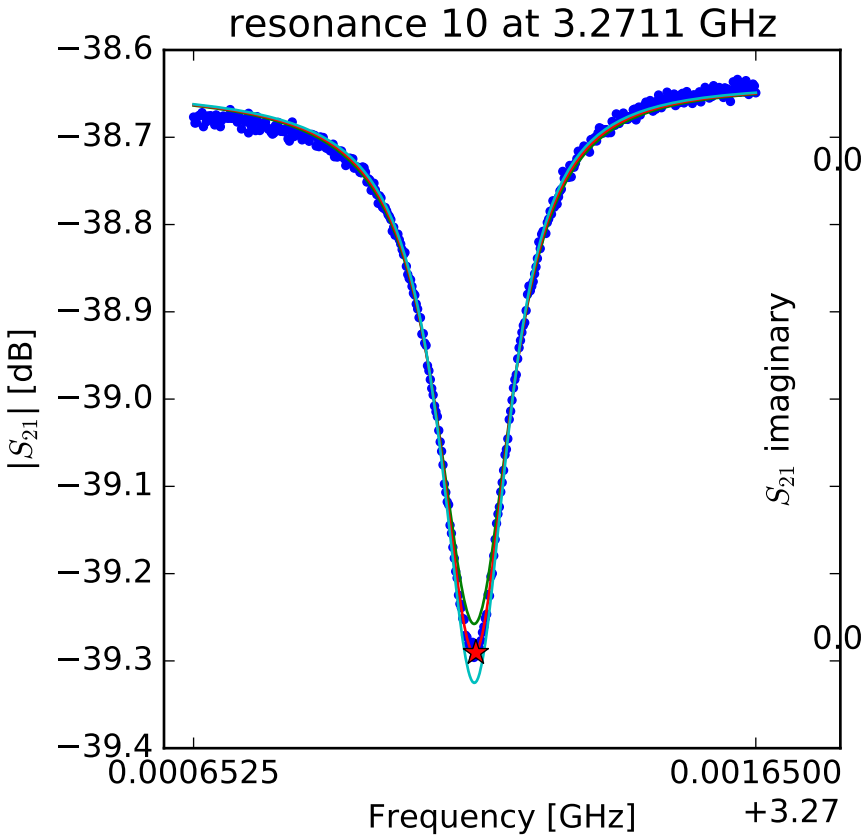



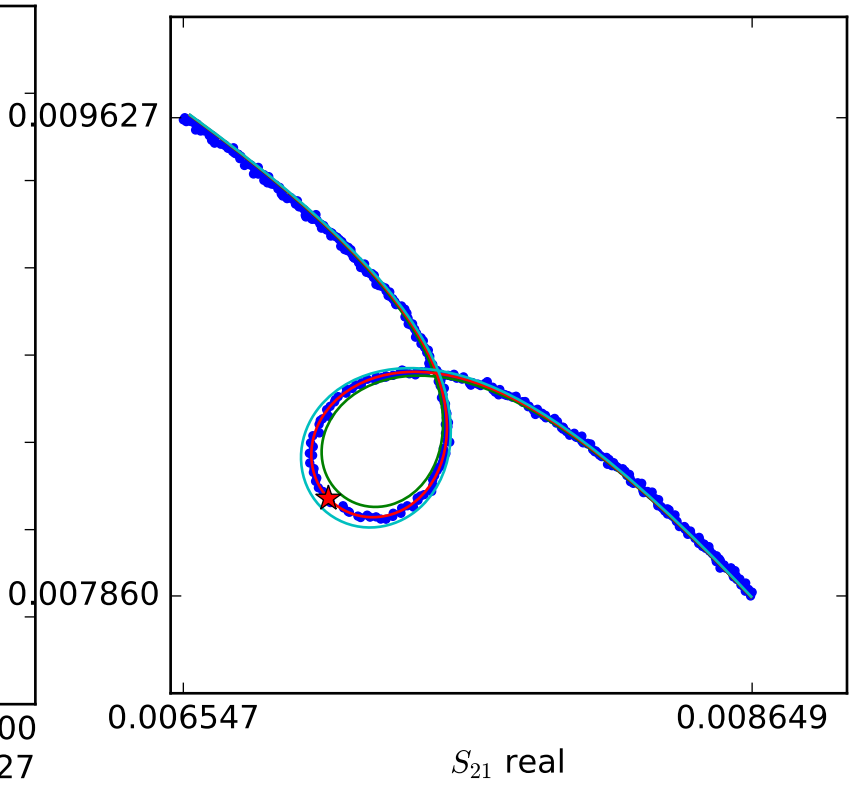



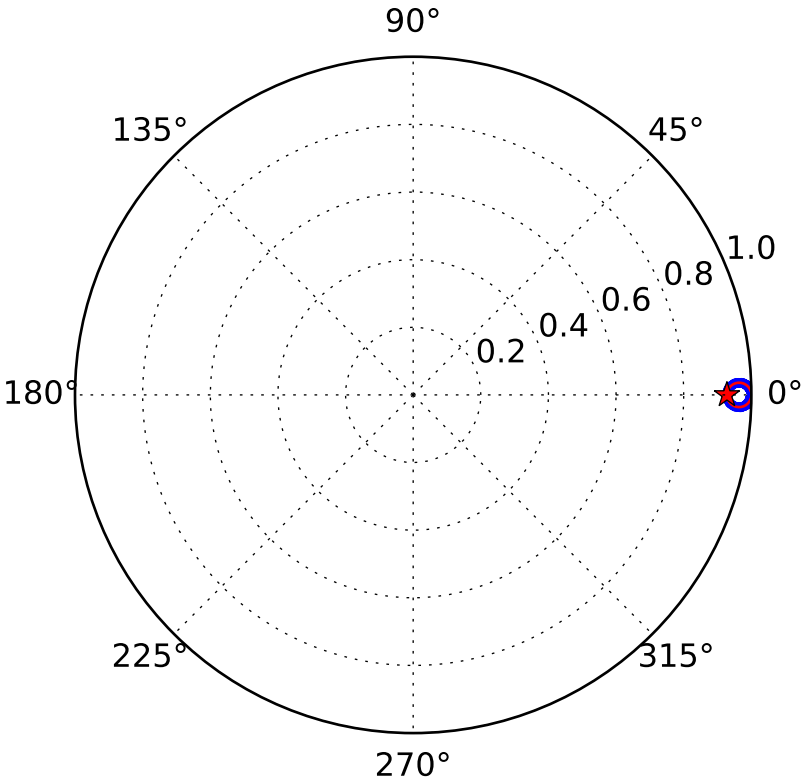



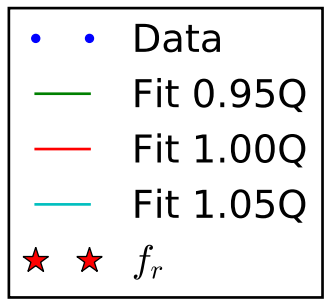

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.2666233989
$Q_r$ = 30313.3777497
$Q_c$ = 547576.859943
$a$ = (0.00634490104245+0.0092276387617j)
$\phi_0$ = -0.370552357017
$\tau$ = 40.3579522284



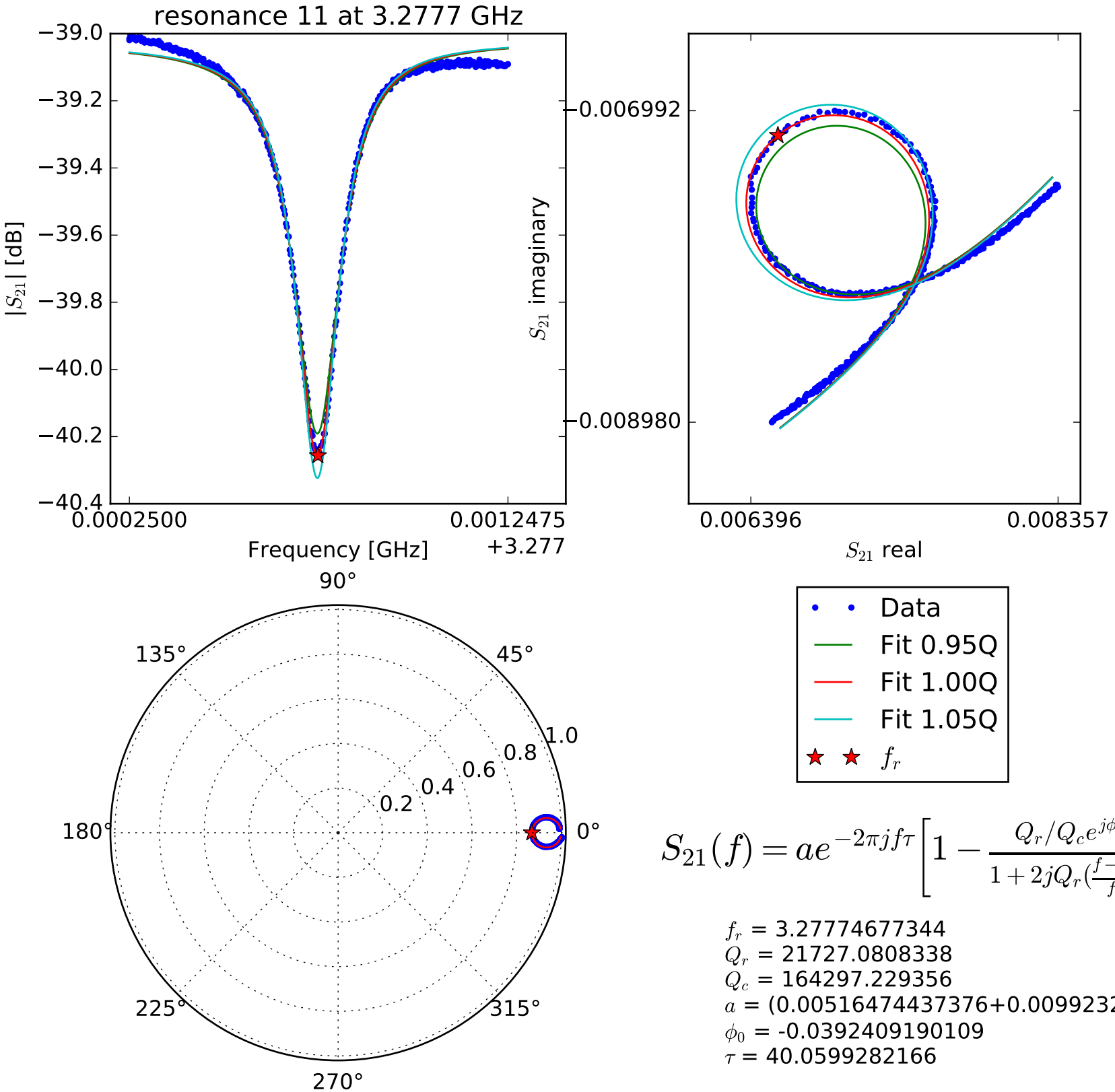



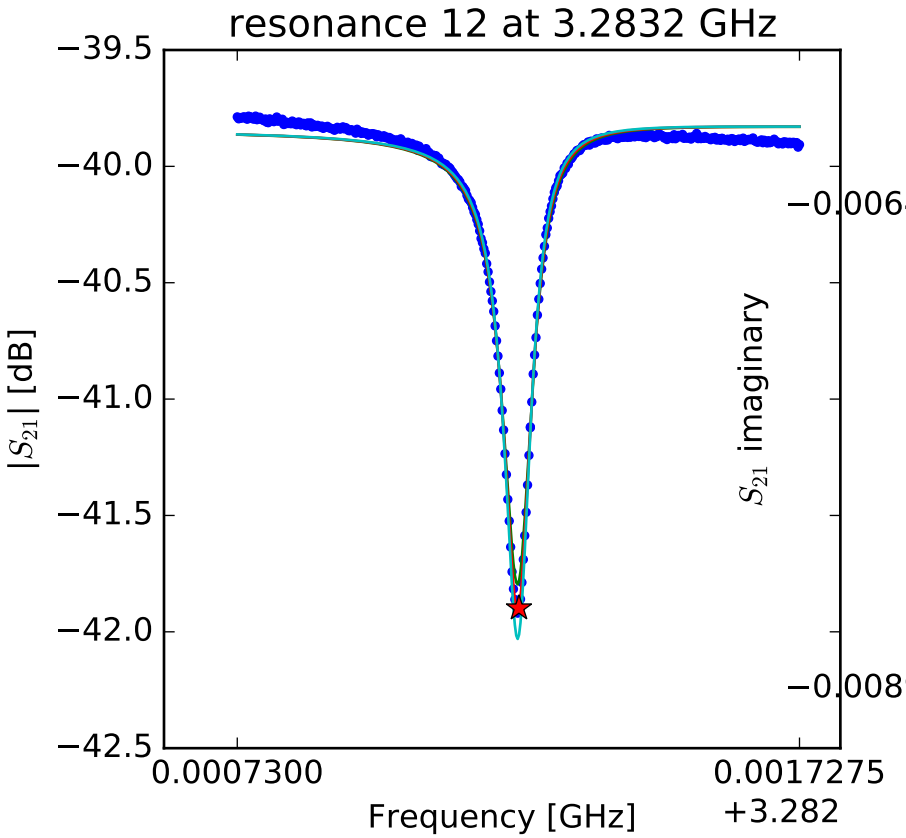

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

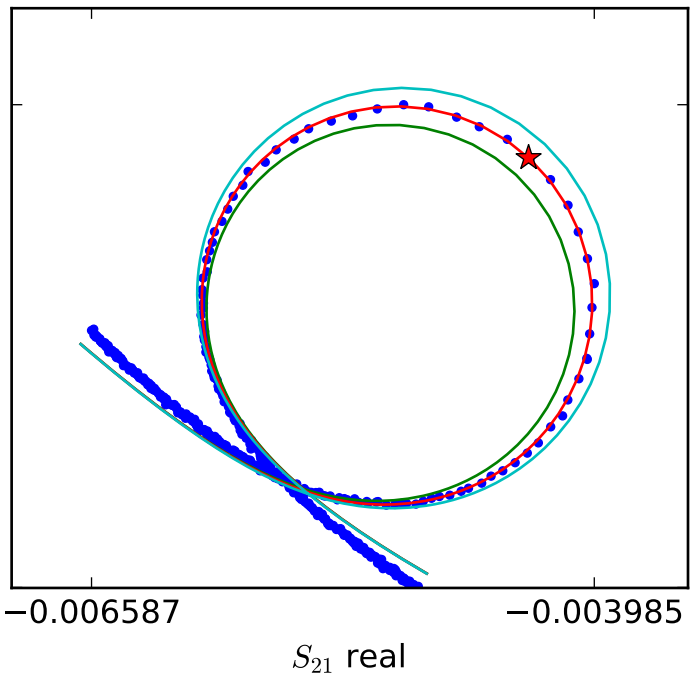
$f_r$ = 3.27115329675
$Q_r$ = 20378.1765199
$Q_c$ = 282115.379732
$a$ = (-0.0112057114818+0.003342548602j)
$\phi_0$ = -0.0680275981483
$\tau$ = 41.0613281788

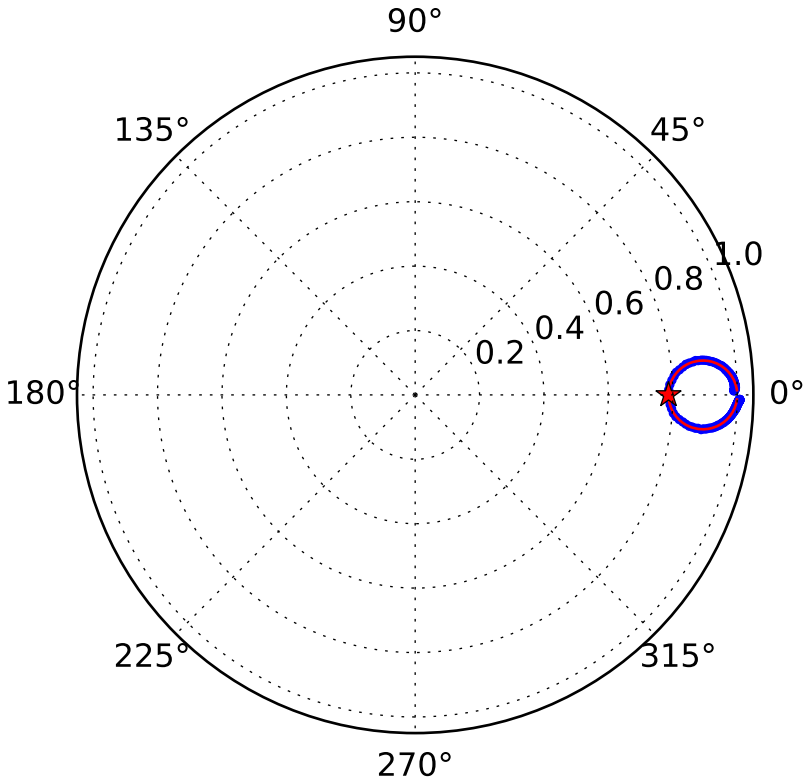


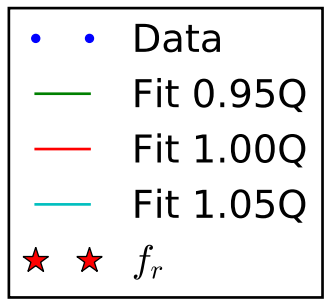

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.27774677344
$Q_r$ = 21727.0808338
$Q_c$ = 164297.229356
$a$ = (0.00516474437376+0.00992329927563j)
$\phi_0$ = -0.0392409190109
$\tau$ = 40.0599282166



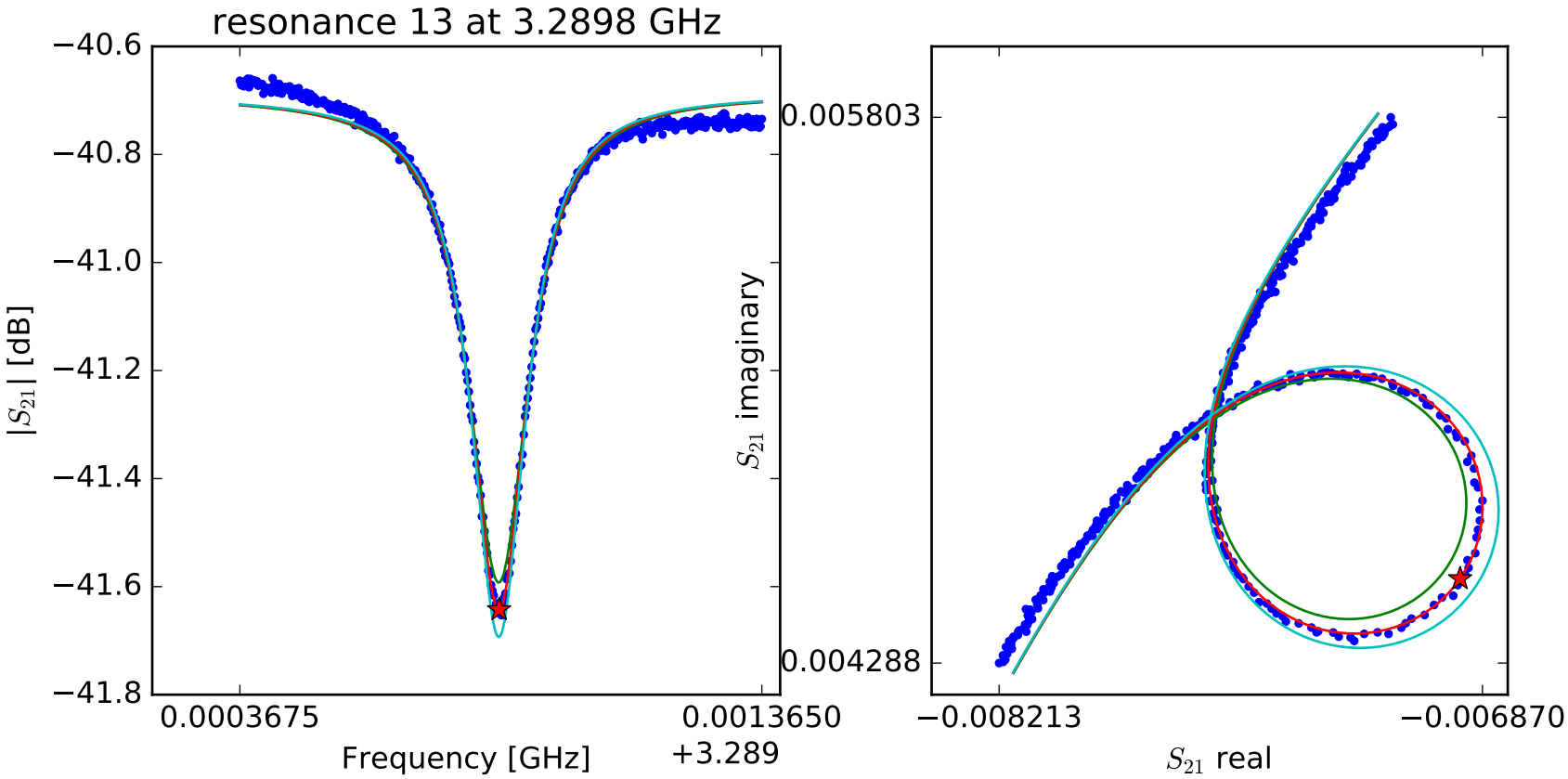



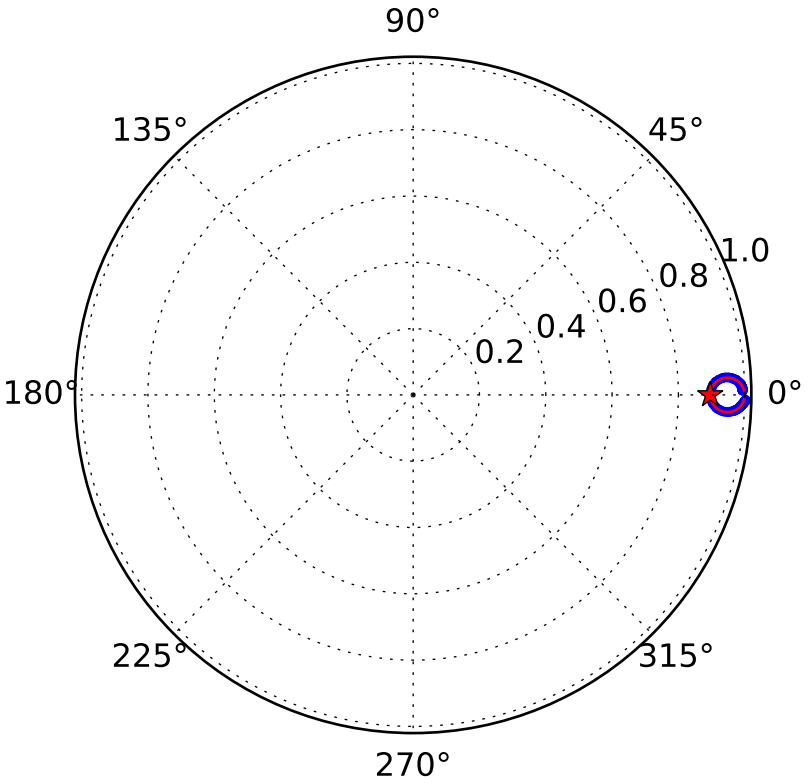



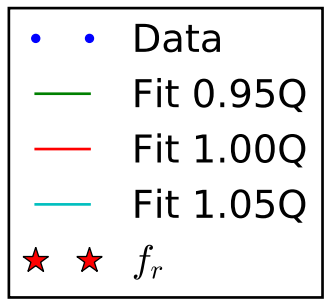




$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.28322978824
$Q_r$ = 47991.1399976
$Q_c$ = 224803.108205
$a$ = (-0.00946362231899-0.00377169347149j)
$\phi_0$ = -0.132762742065
$\tau$ = 38.3483655582

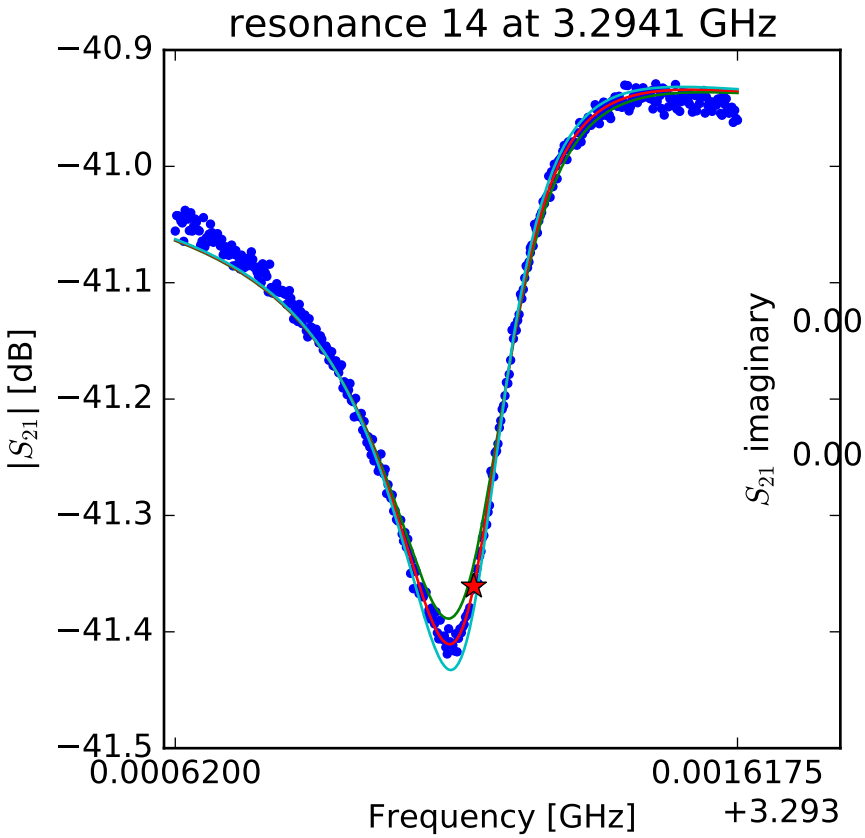


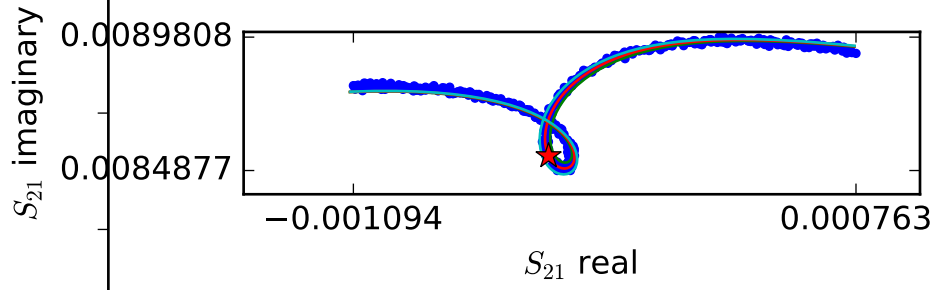



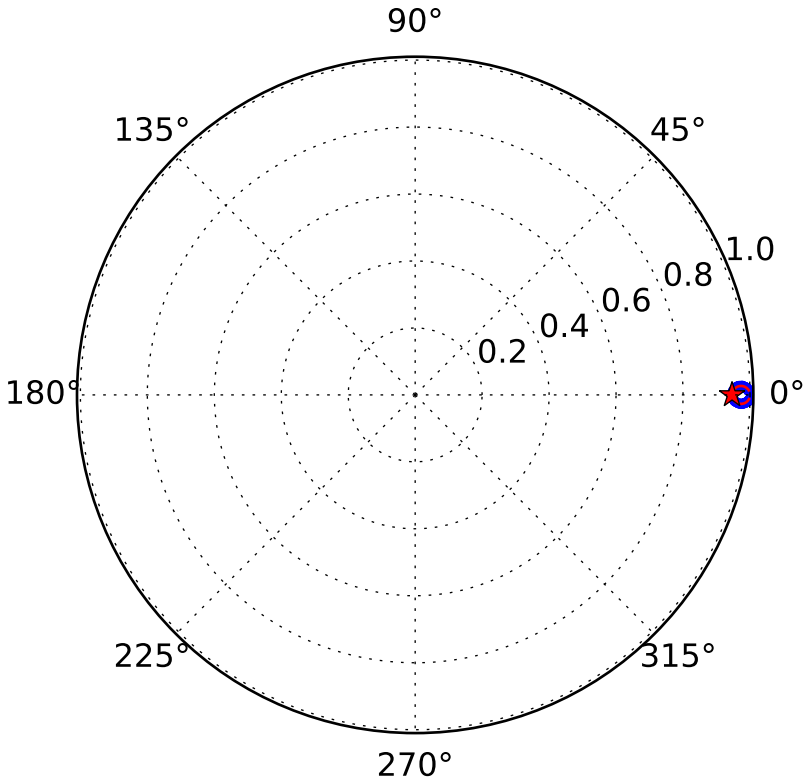



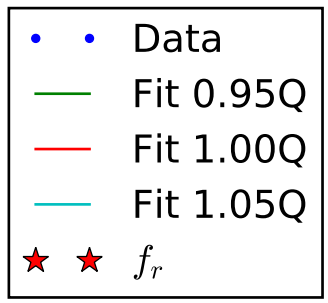

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.28986298491
$Q_r$ = 23444.1453675
$Q_c$ = 225305.536239
$a$ = (0.00288150646622+0.00877700910342j)
$\phi_0$ = -0.0210554305104
$\tau$ = 36.7163901673



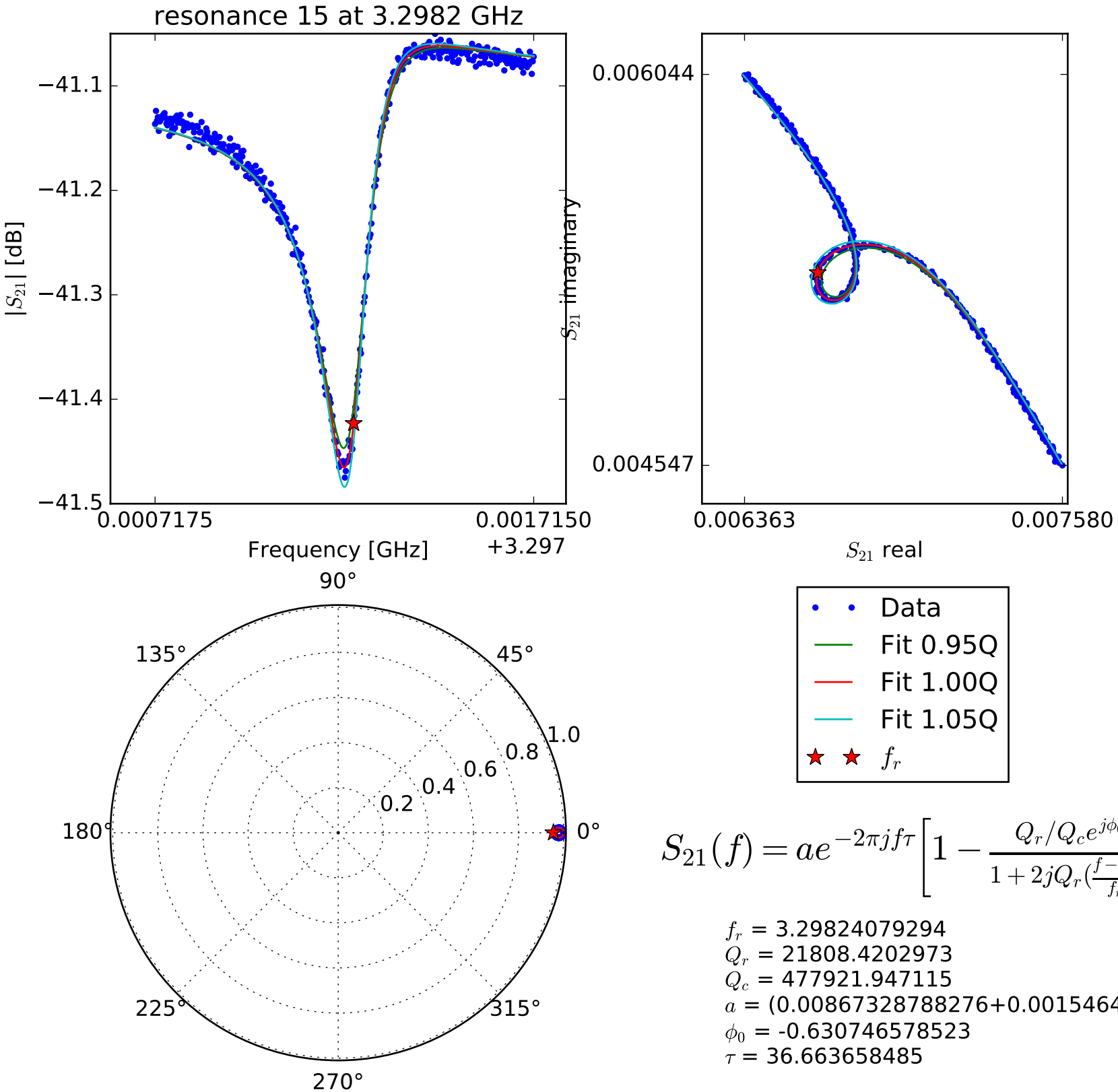



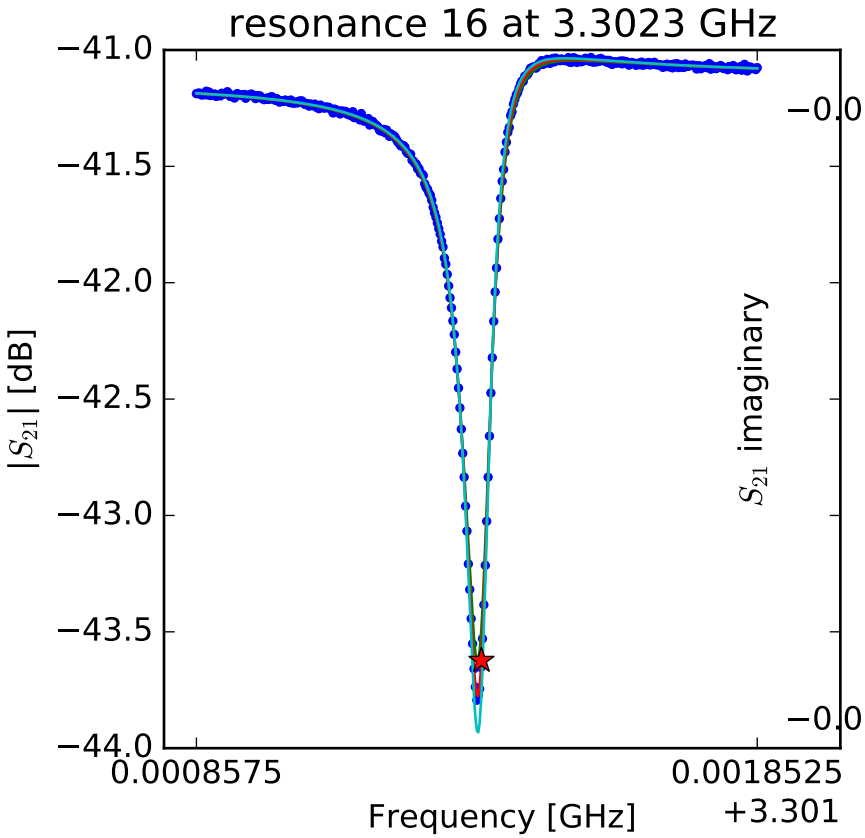

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

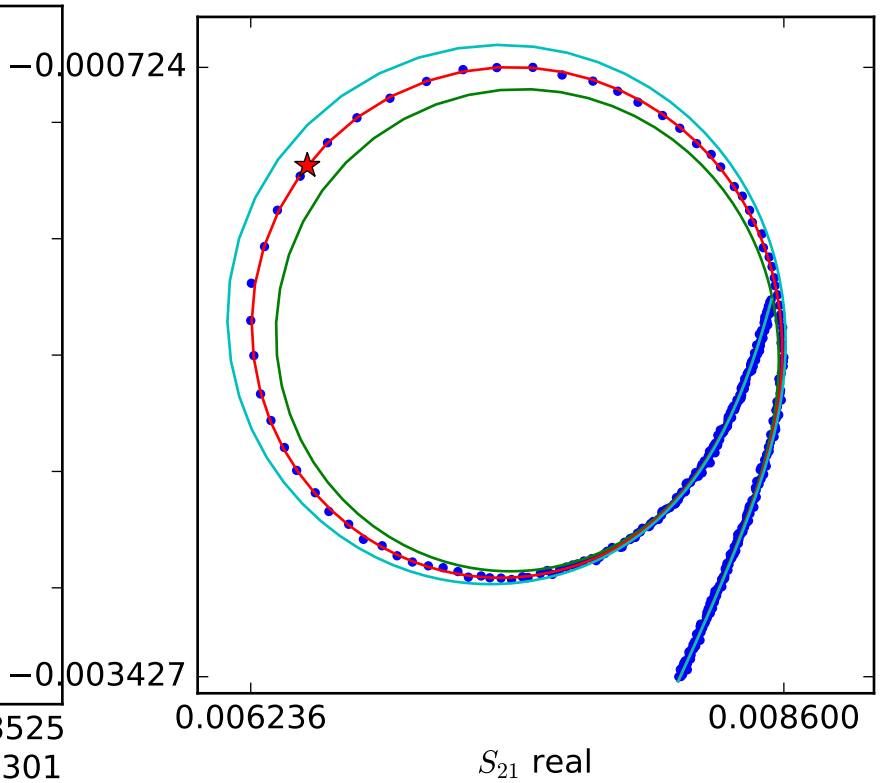
$f_r$ = 3.2941496328
$Q_r$ = 12767.4588596
$Q_c$ = 237814.378279
$a$ = (0.00788750309833-0.00419555158723j)
$\phi_0$ = -0.625676371158
$\tau$ = 36.9353235282

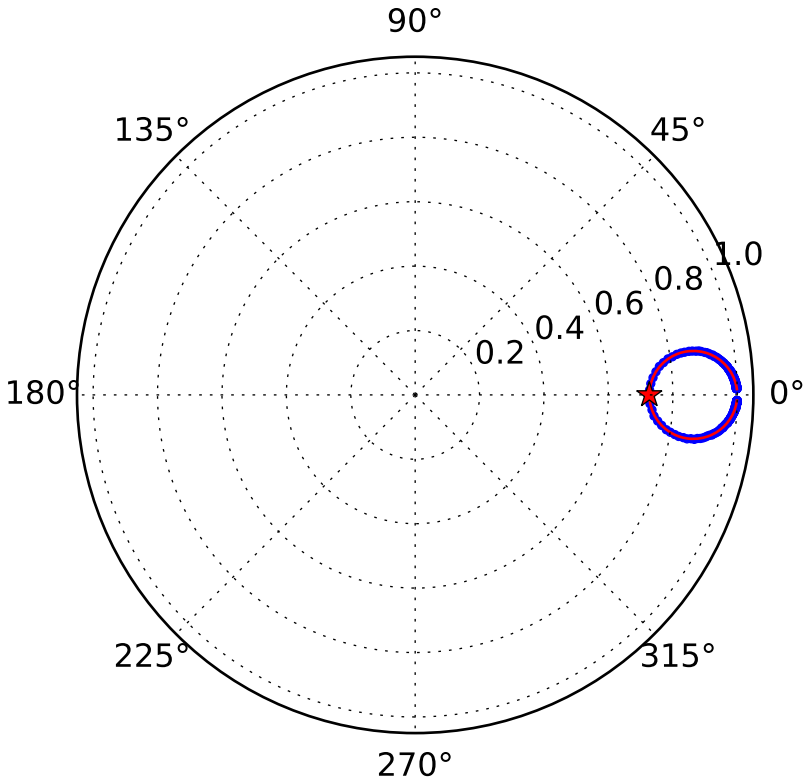


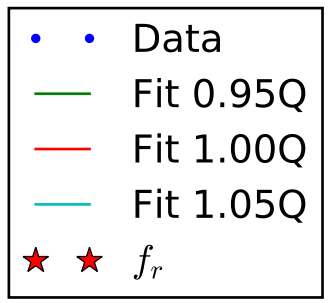

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.29824079294
$Q_r$ = 21808.4202973
$Q_c$ = 477921.947115
$a$ = (0.00867328788276+0.00154645834619j)
$\phi_0$ = -0.630746578523
$\tau$ = 36.663658485



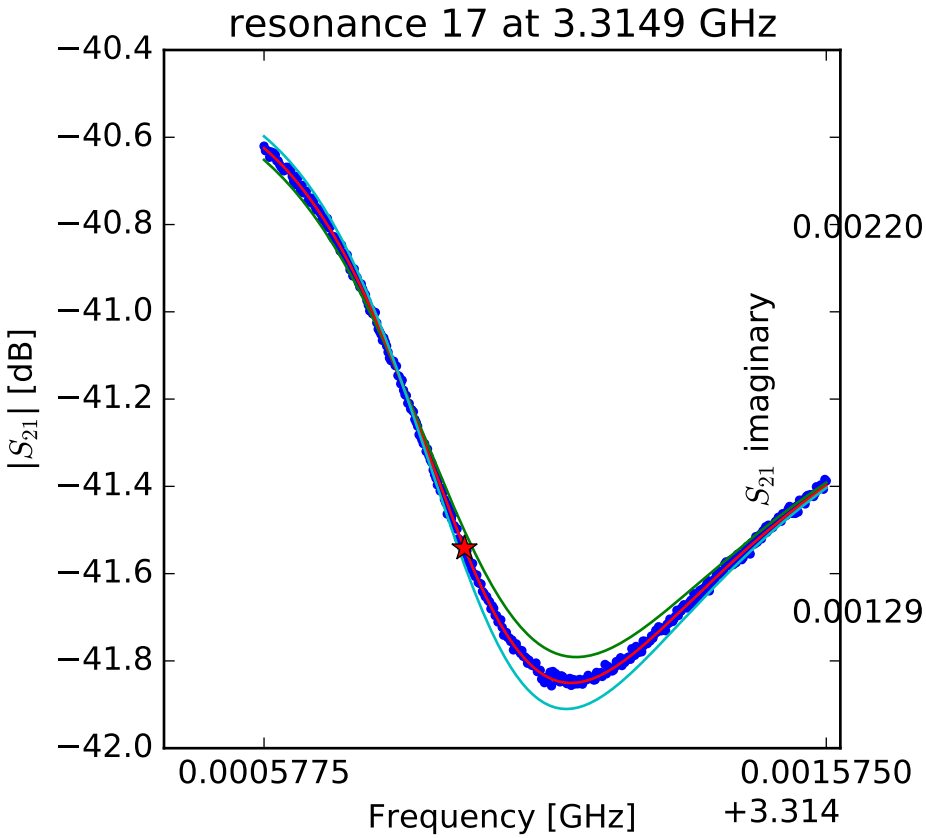



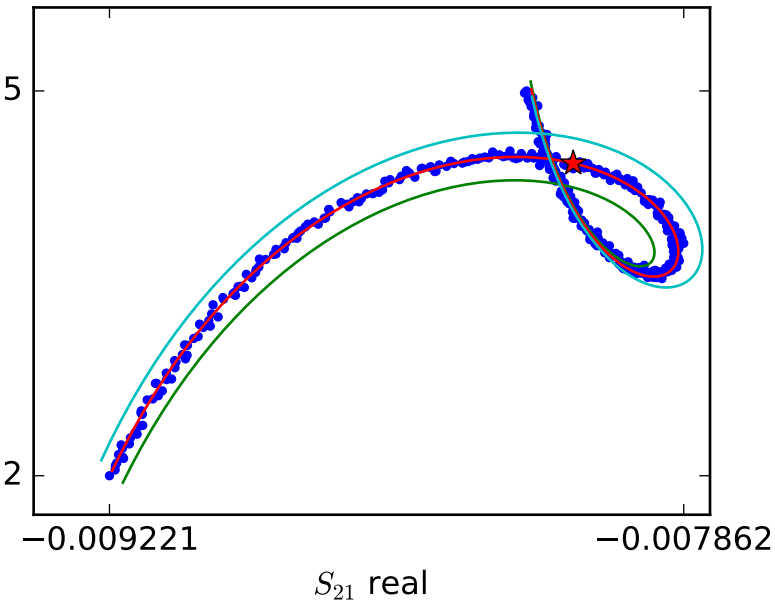



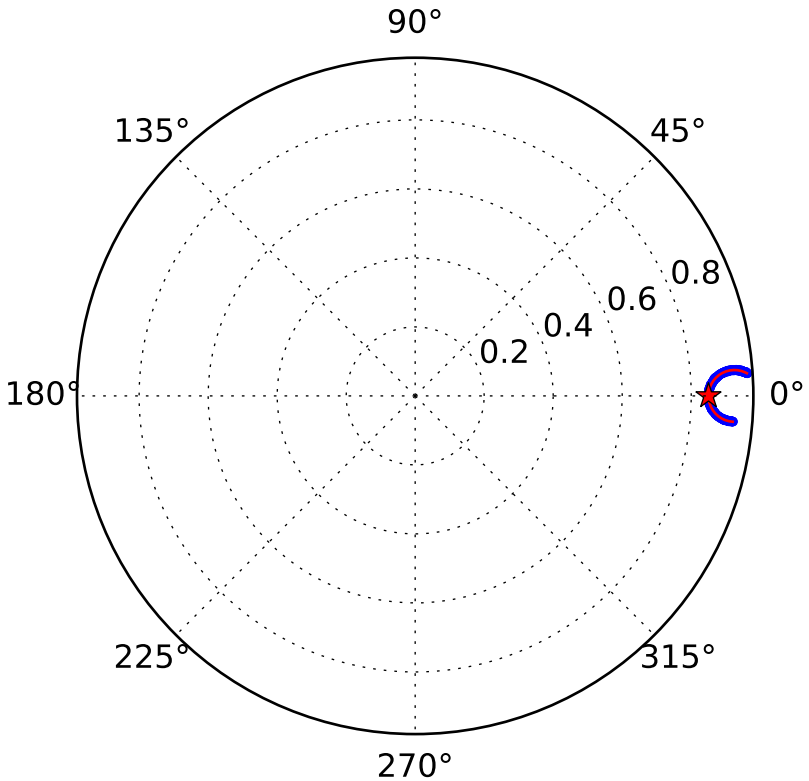



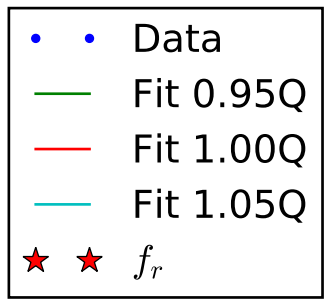

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.30236321694
$Q_r$ = 50863.5202871
$Q_c$ = 186271.391037
$a$ = (-0.00878468315584+3.33673964481e-05j
$\phi_0$ = -0.355615972558
$\tau$ = 37.1091151948



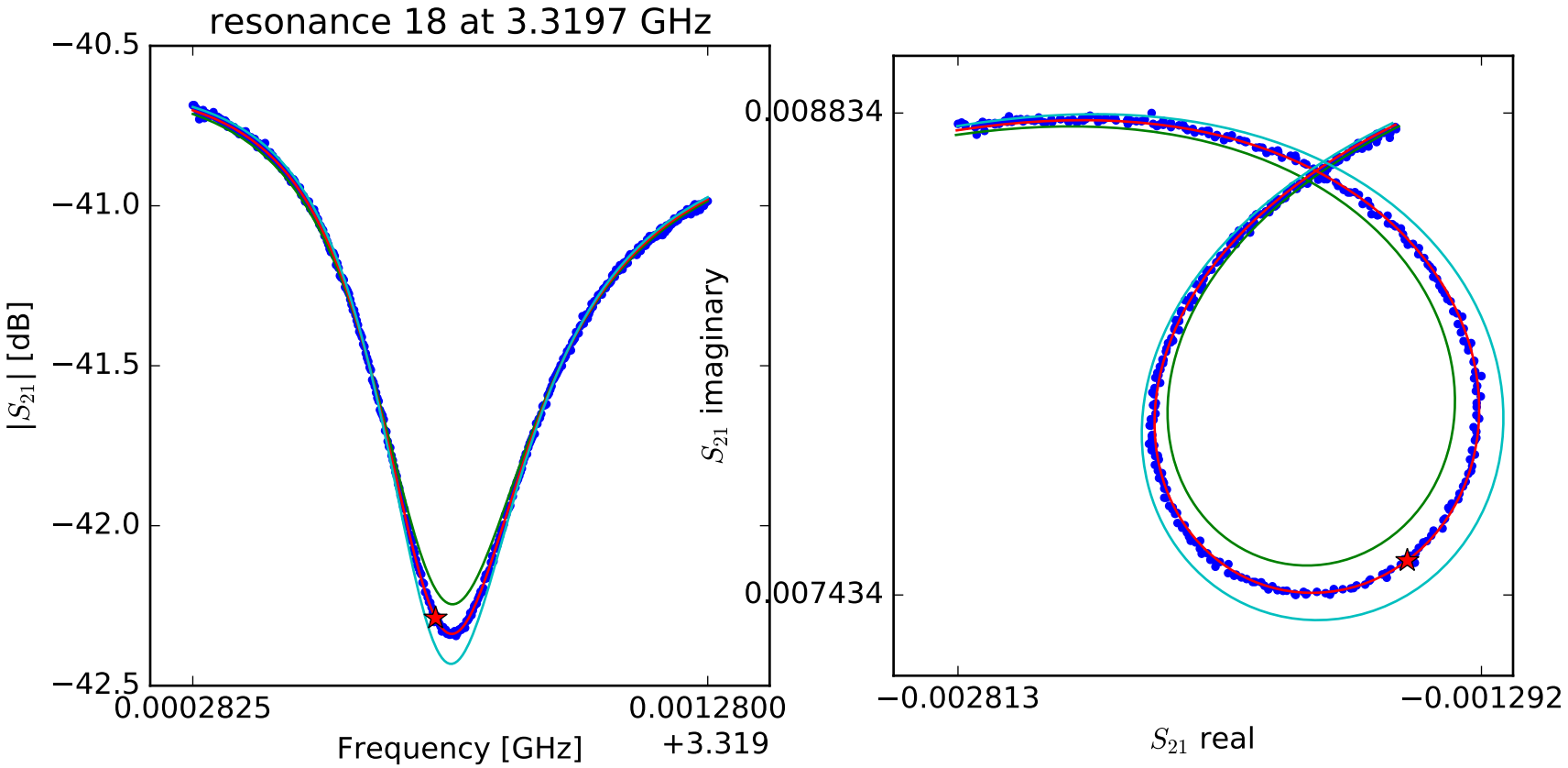



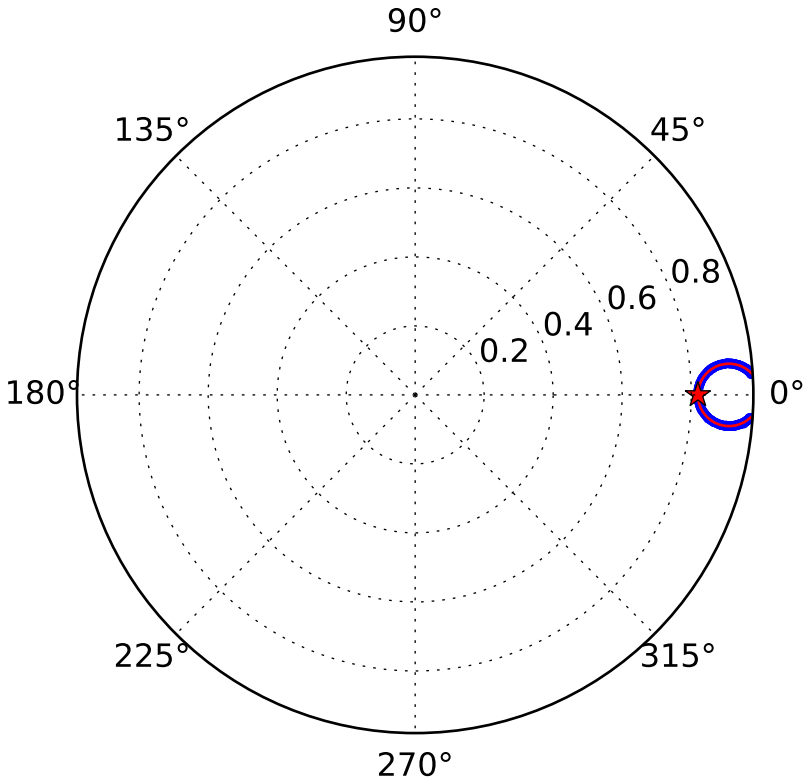



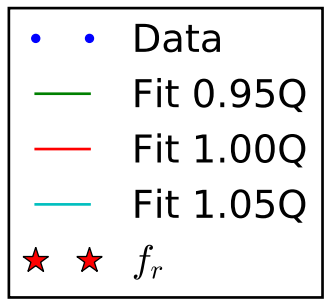




$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.31493318672
$Q_r$ = 4371.1715826
$Q_c$ = 29129.5193681
$a$ = (-0.00723994264252-0.00568360057193j)
$\phi_0$ = 0.864184997313
$\tau$ = 38.9524917429

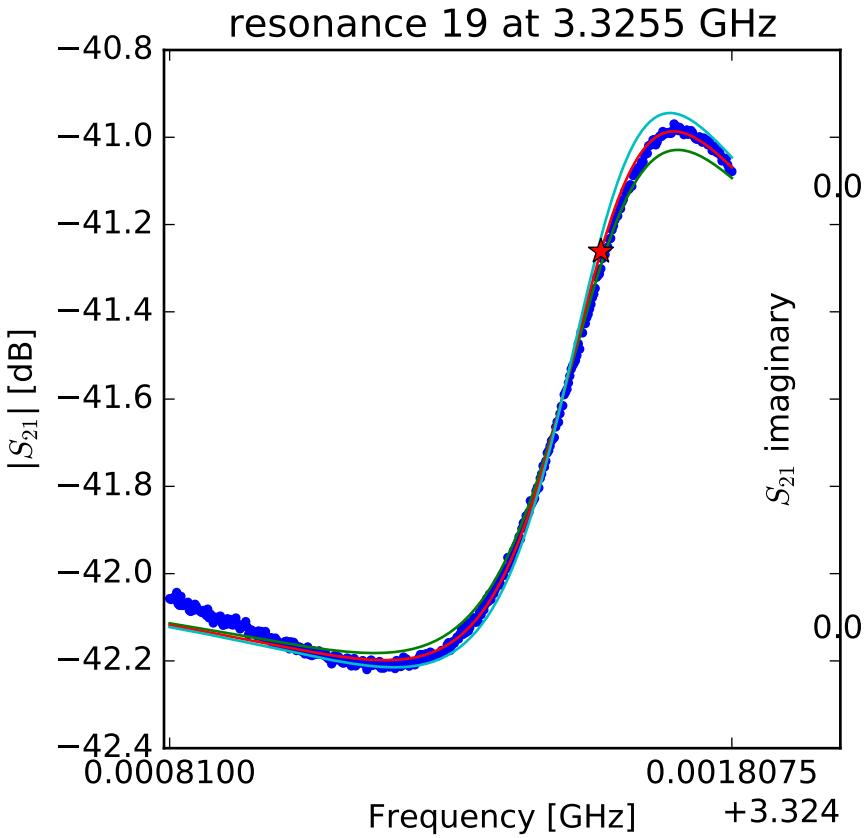


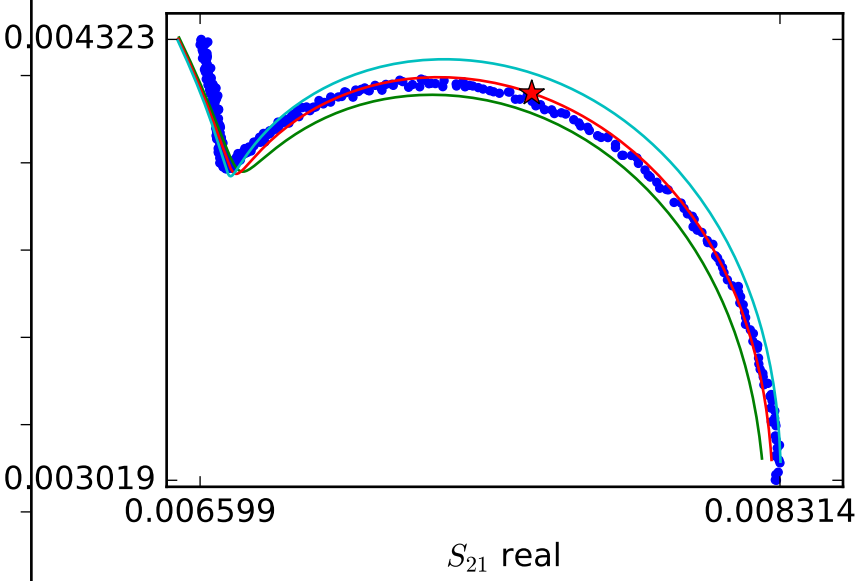



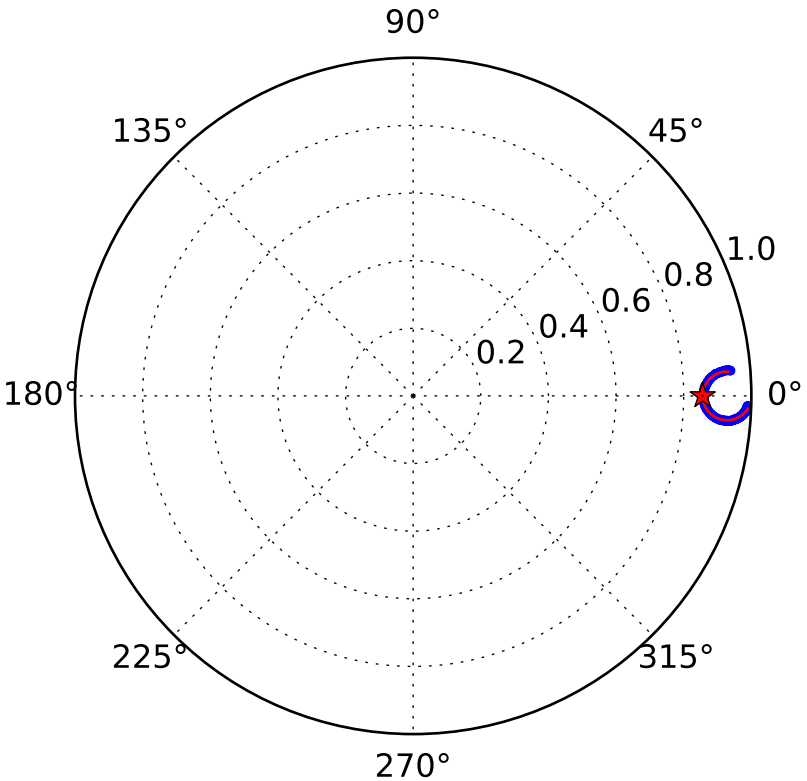



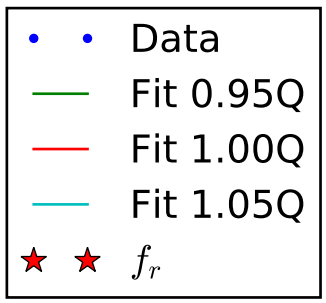

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.31975281607
$Q_r$ = 8236.55674528
$Q_c$ = 45547.8542144
$a$ = (0.0058511277379-0.00720573335094j)
$\phi_0$ = 0.281306532028
$\tau$ = 41.7402962975



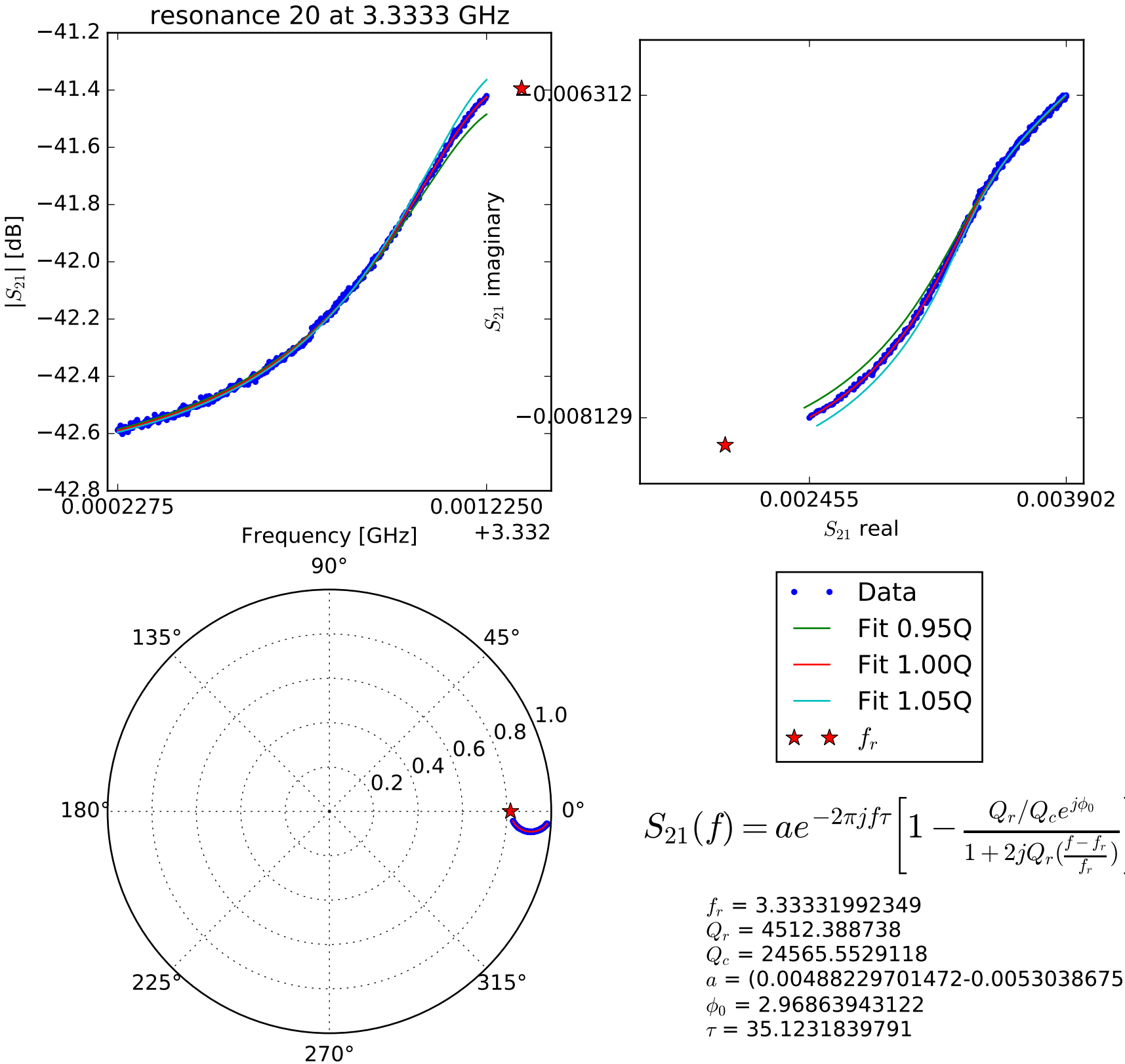



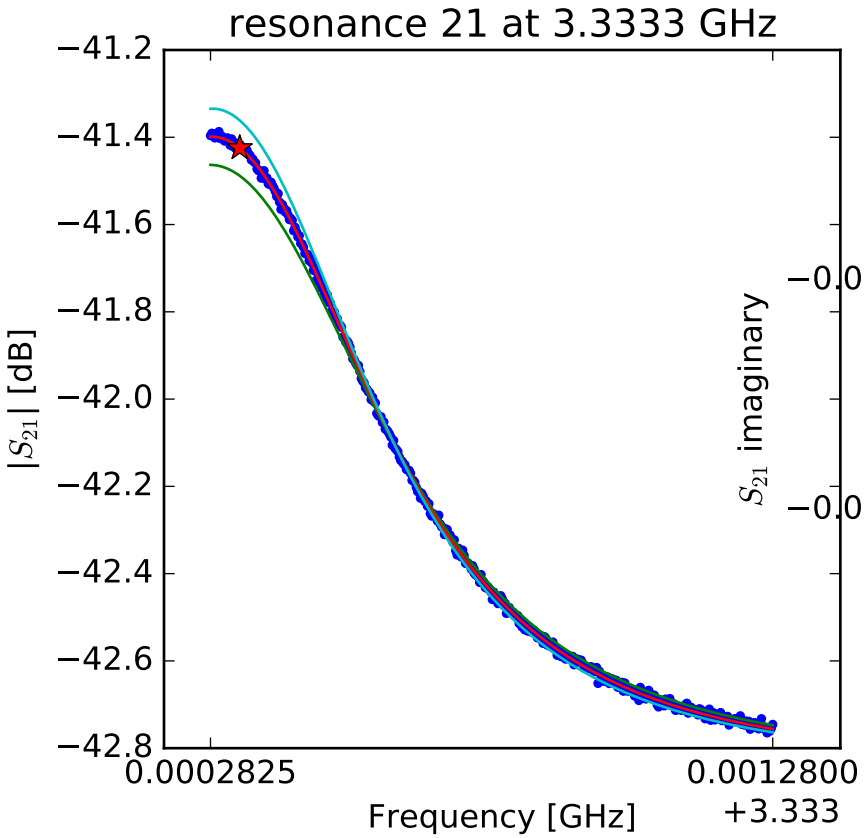

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

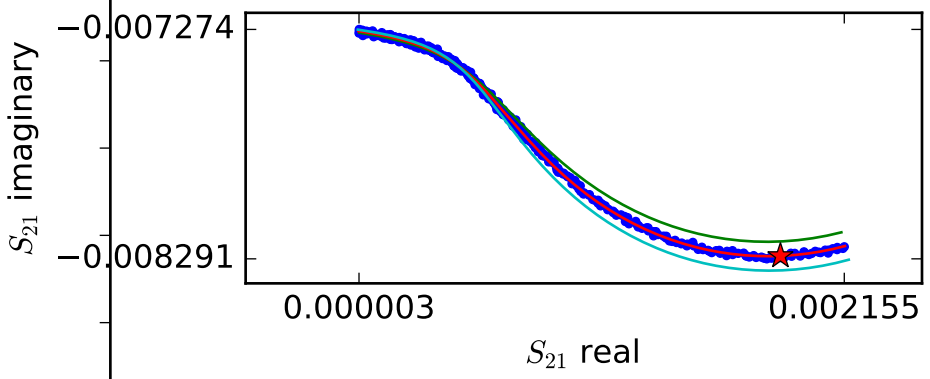
$f_r$ = 3.32557518109
$Q_r$ = 7473.18108687
$Q_c$ = 51896.8676383
$a$ = (-0.000775824622335+0.00803509108656
$\phi_0$ = -2.02751900603
$\tau$ = 36.4462095667

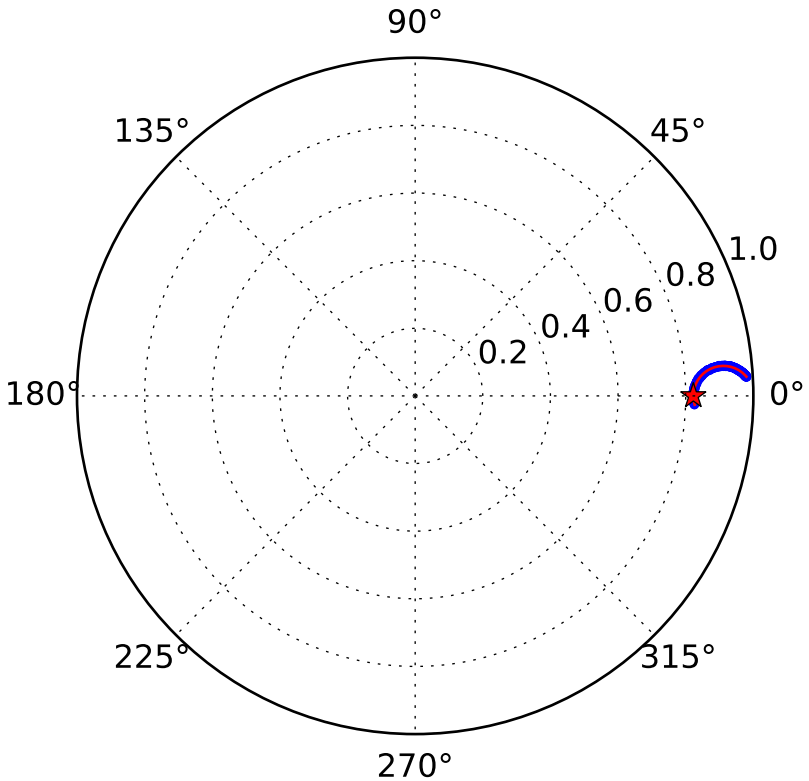


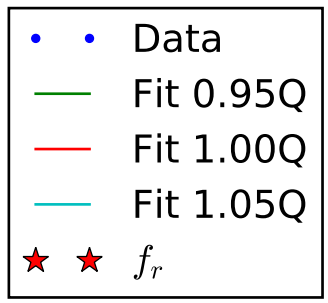

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.33331992349
$Q_r$ = 4512.388738
$Q_c$ = 24565.5529118
$a$ = (0.00488229701472-0.00530386751912j)
$\phi_0$ = 2.96863943122
$\tau$ = 35.1231839791



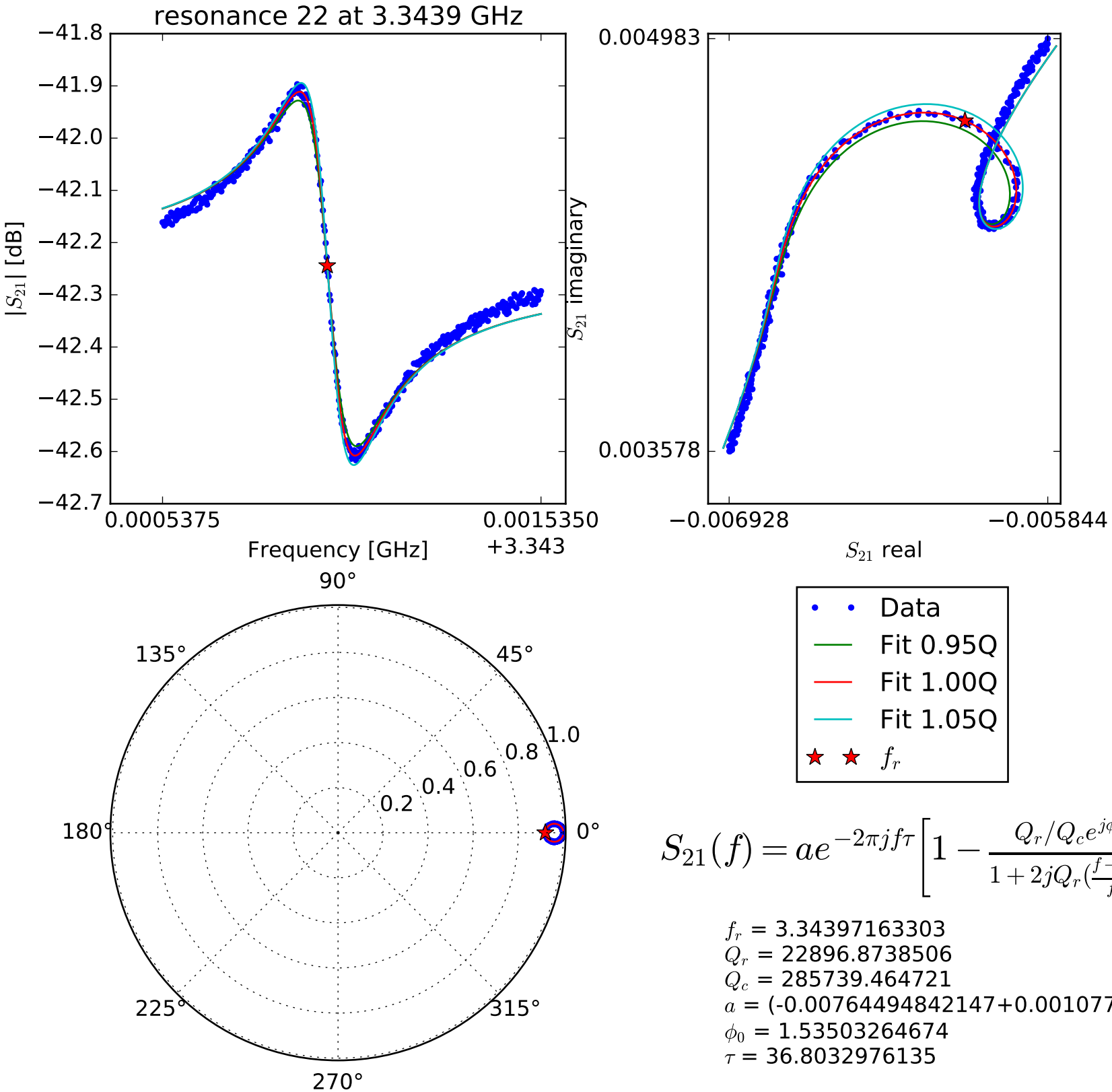



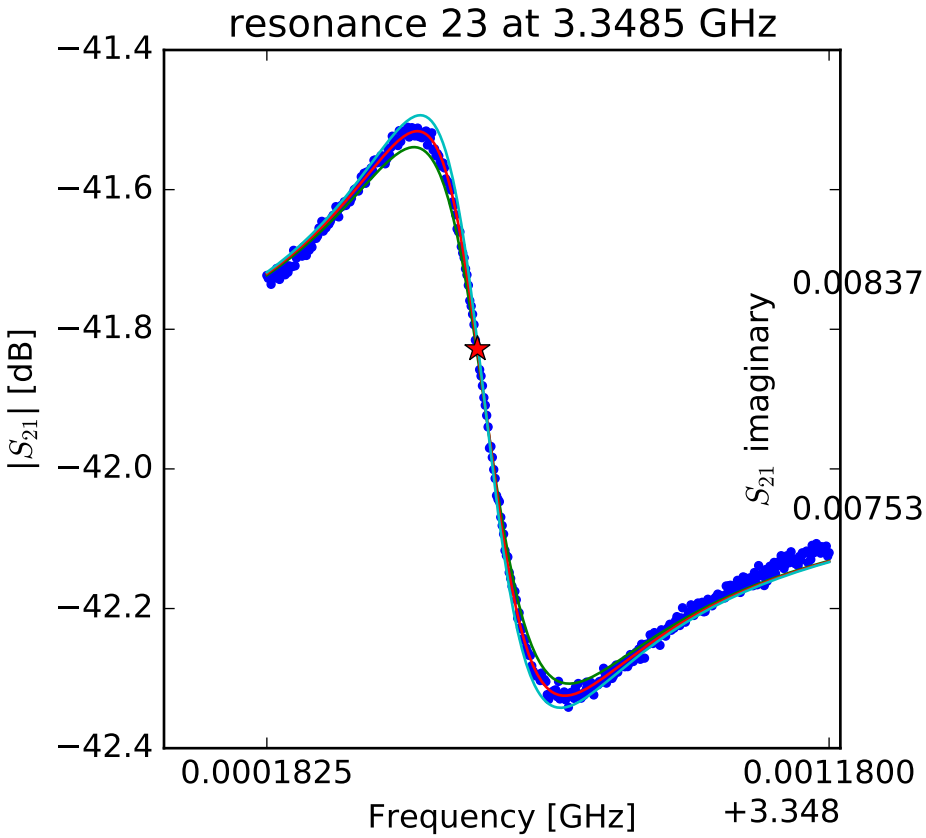

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

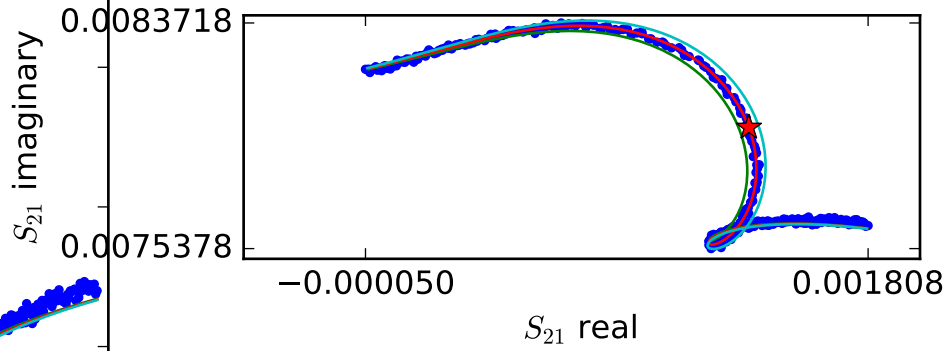
$f_r$ = 3.33333434563
$Q_r$ = 4860.16694838
$Q_c$ = 27384.3705555
$a$ = (-0.00306715971171+0.00657465070979j)
$\phi_0$ = -3.45973256029
$\tau$ = 35.2579453105

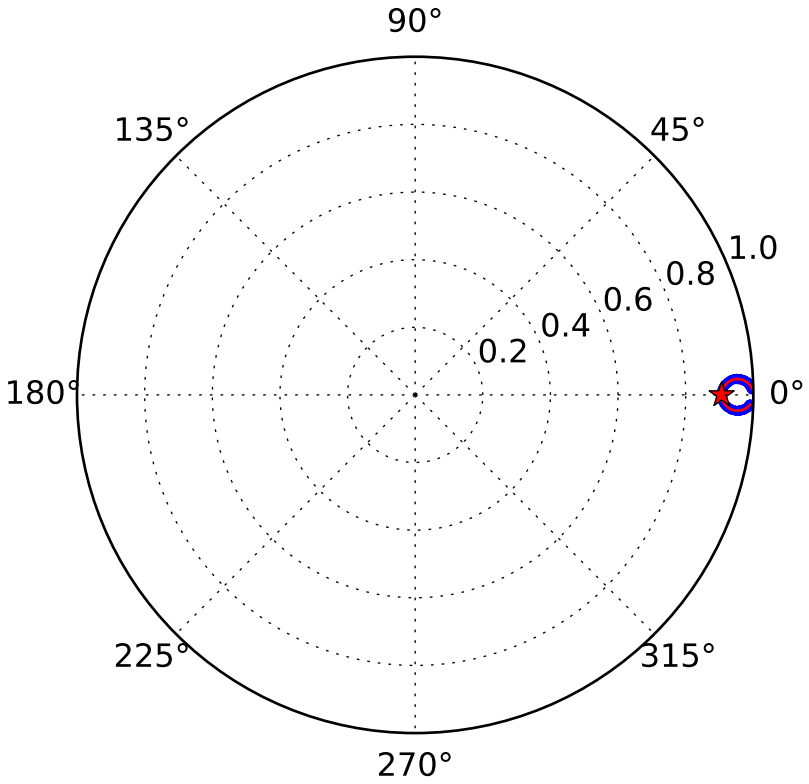


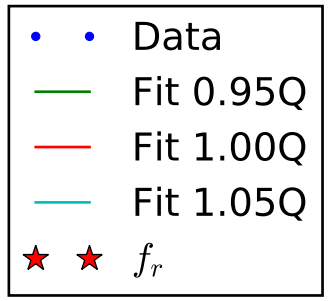

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.34397163303
$Q_r$ = 22896.8738506
$Q_c$ = 285739.464721
$a$ = (-0.00764494842147+0.00107730957032j)
$\phi_0$ = 1.53503264674
$\tau$ = 36.8032976135



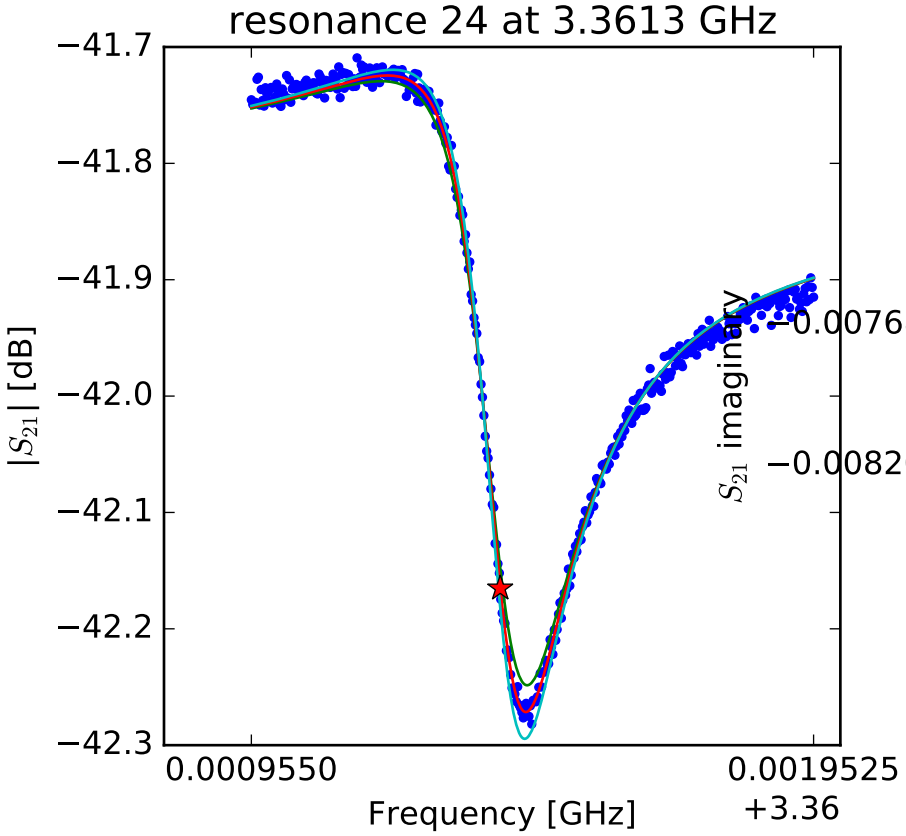



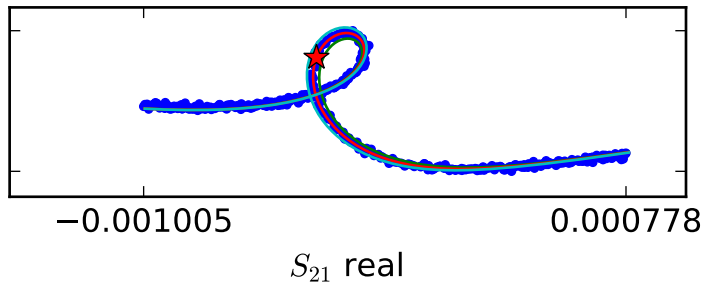



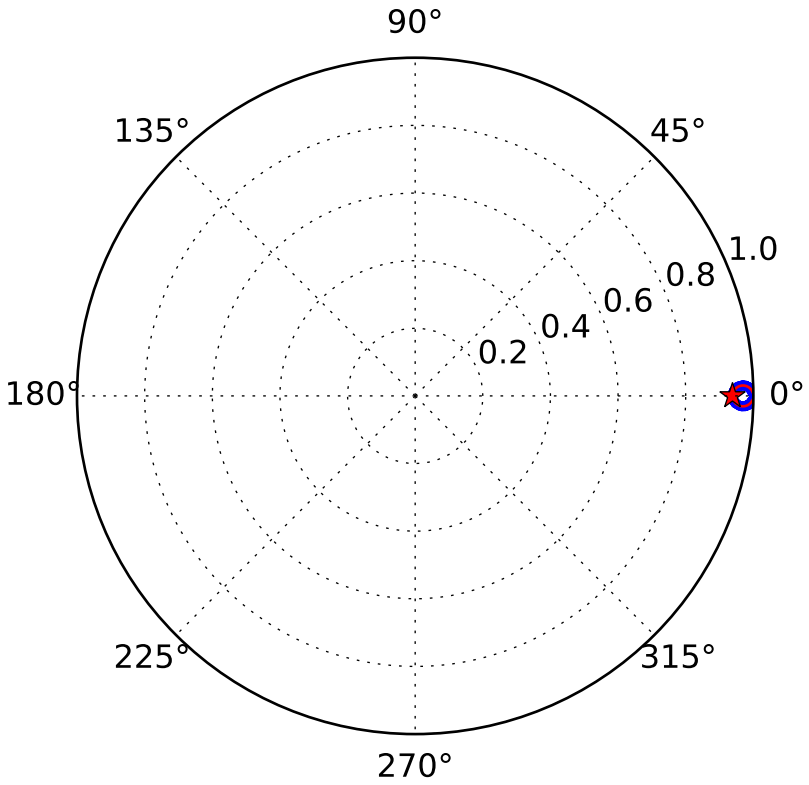



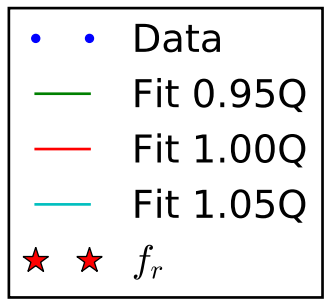

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.34855610235
$Q_r$ = 13026.7520859
$Q_c$ = 138978.255479
$a$ = (-0.00188772217986-0.00773772941133j)
$\phi_0$ = 1.70989426854
$\tau$ = 37.7698199922



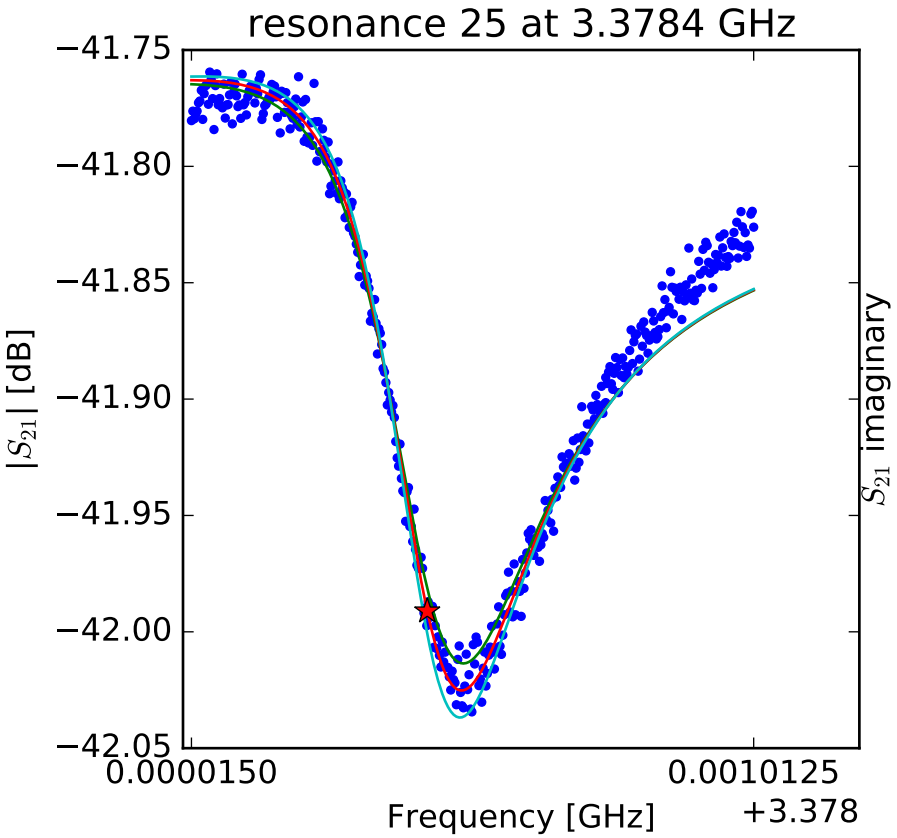



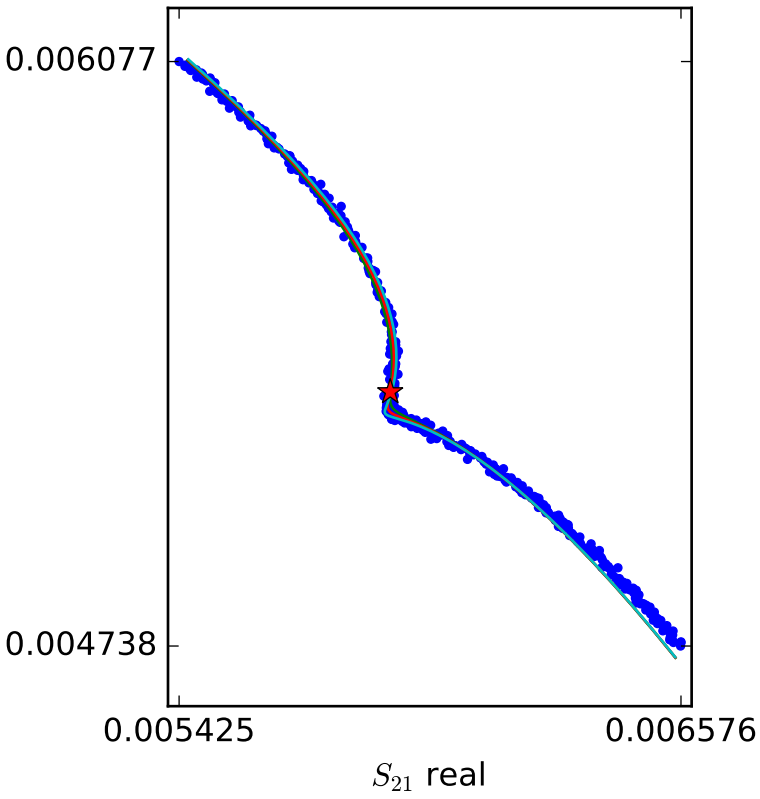



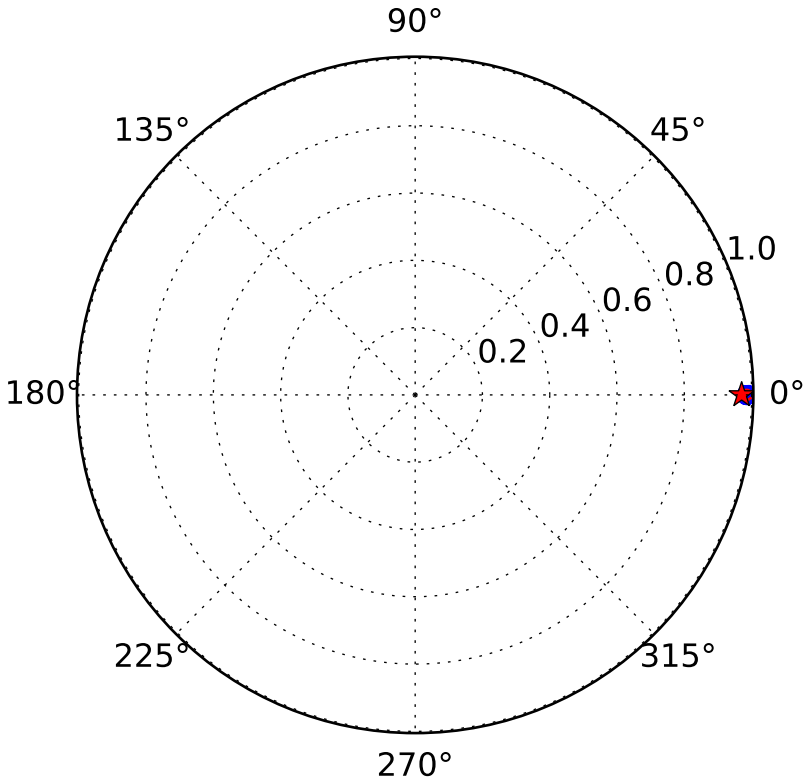



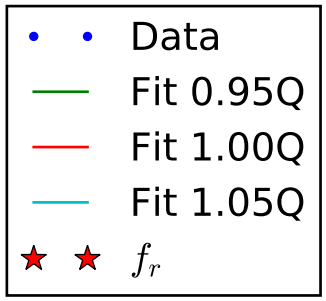

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.36139655772
$Q_r$ = 17625.3923373
$Q_c$ = 285581.599022
$a$ = (0.0075876841987-0.00286107206753j)
$\phi_0$ = 0.864553984821
$\tau$ = 37.8391255286



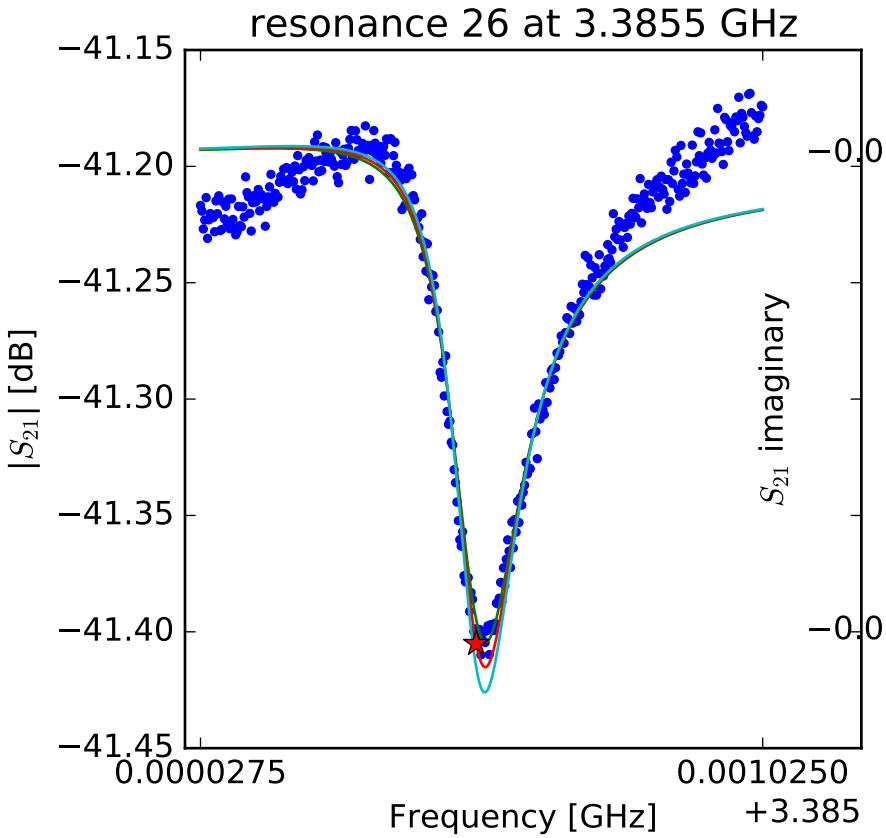



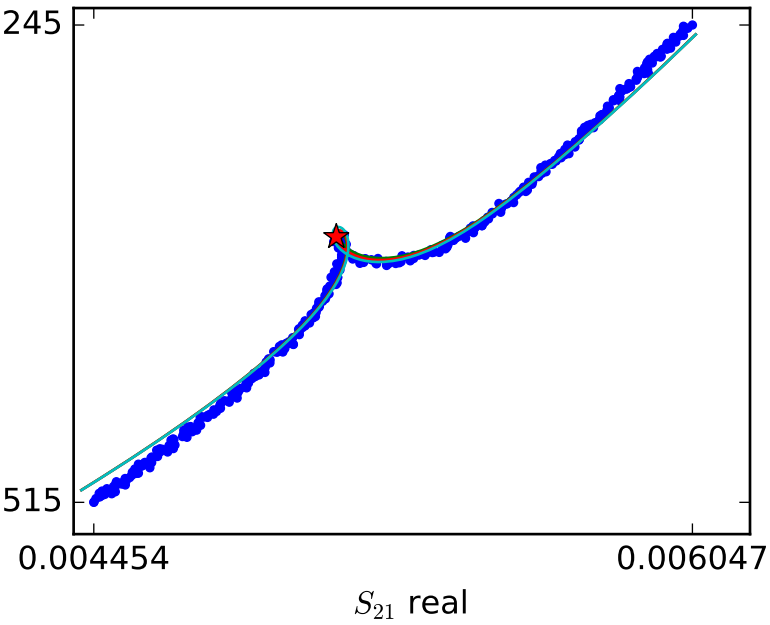



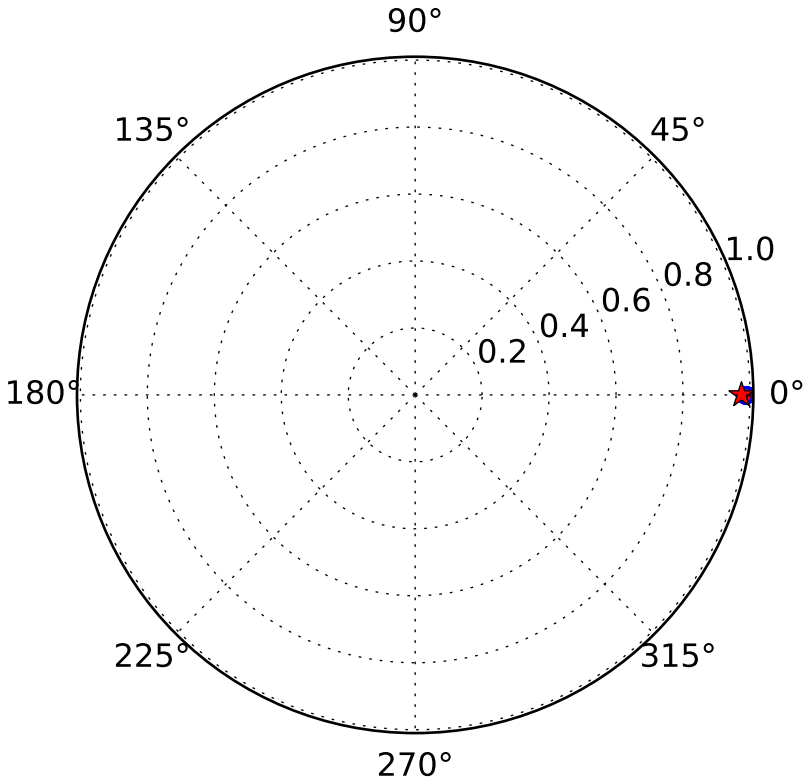



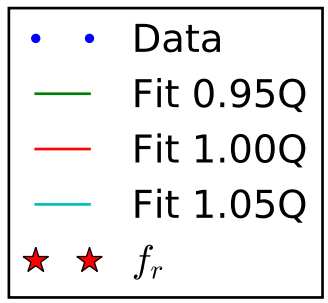

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.37843338692
$Q_r$ = 10565.3899943
$Q_c$ = 353949.094925
$a$ = (-0.000598435576936+0.00811063361781
$\phi_0$ = 0.717652634433
$\tau$ = 37.0413898687



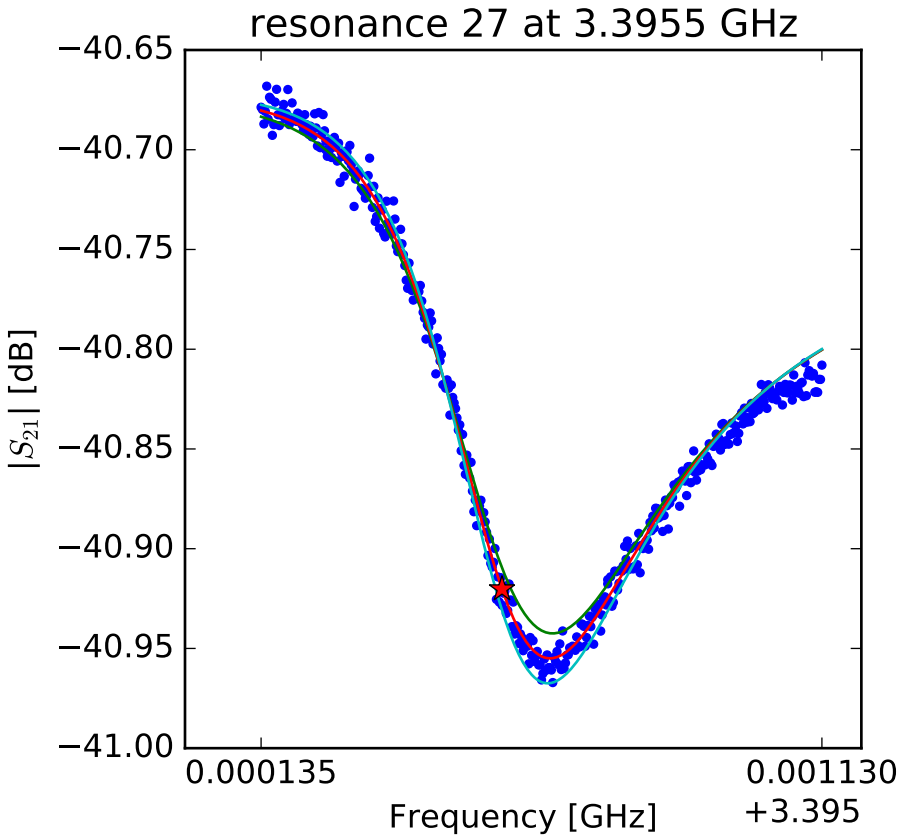



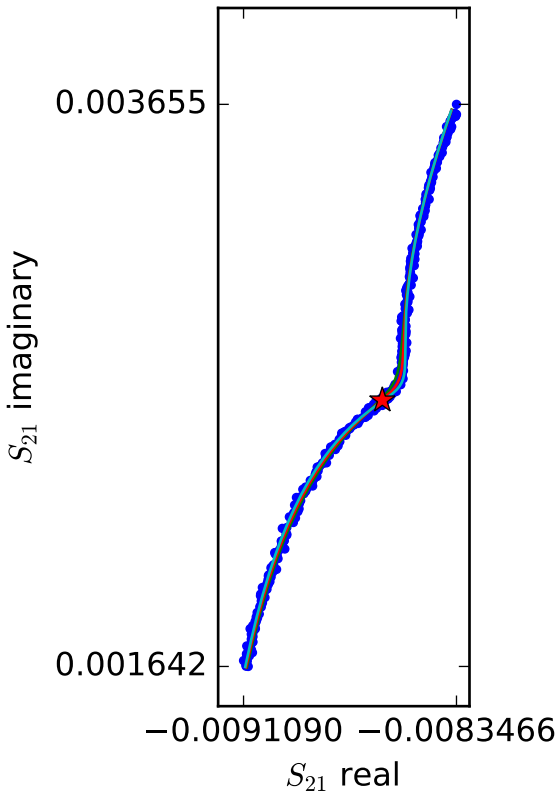



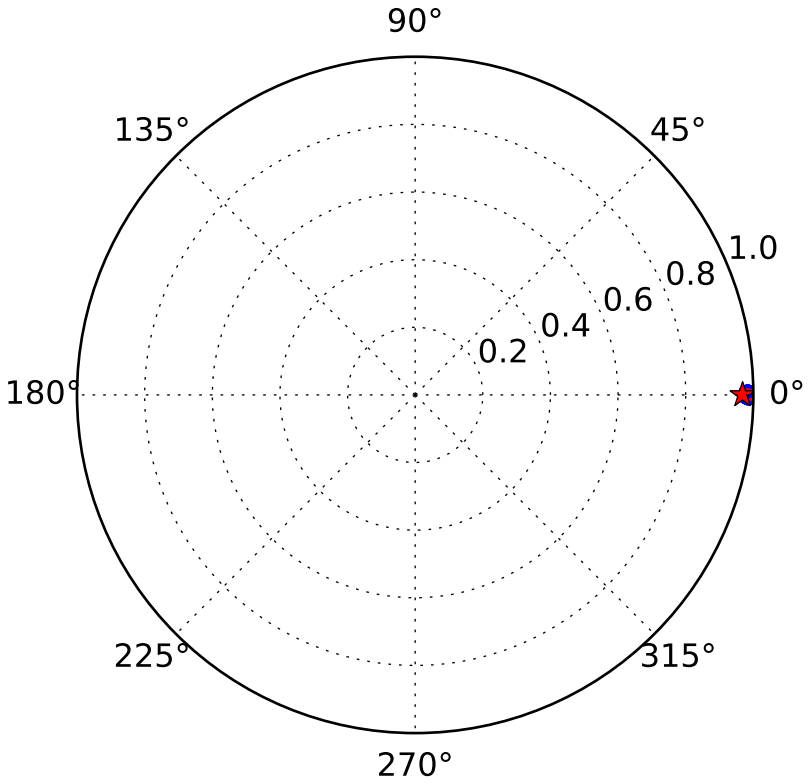



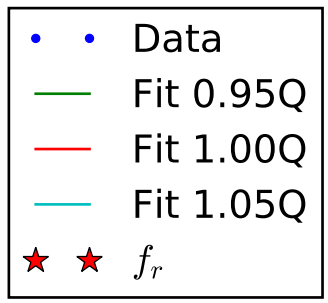

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.385516661
$Q_r$ = 22799.988323
$Q_c$ = 896672.120593
$a$ = (0.00666611741036+0.00560311325604j)
$\phi_0$ = -5.86352987866
$\tau$ = 38.4748522655



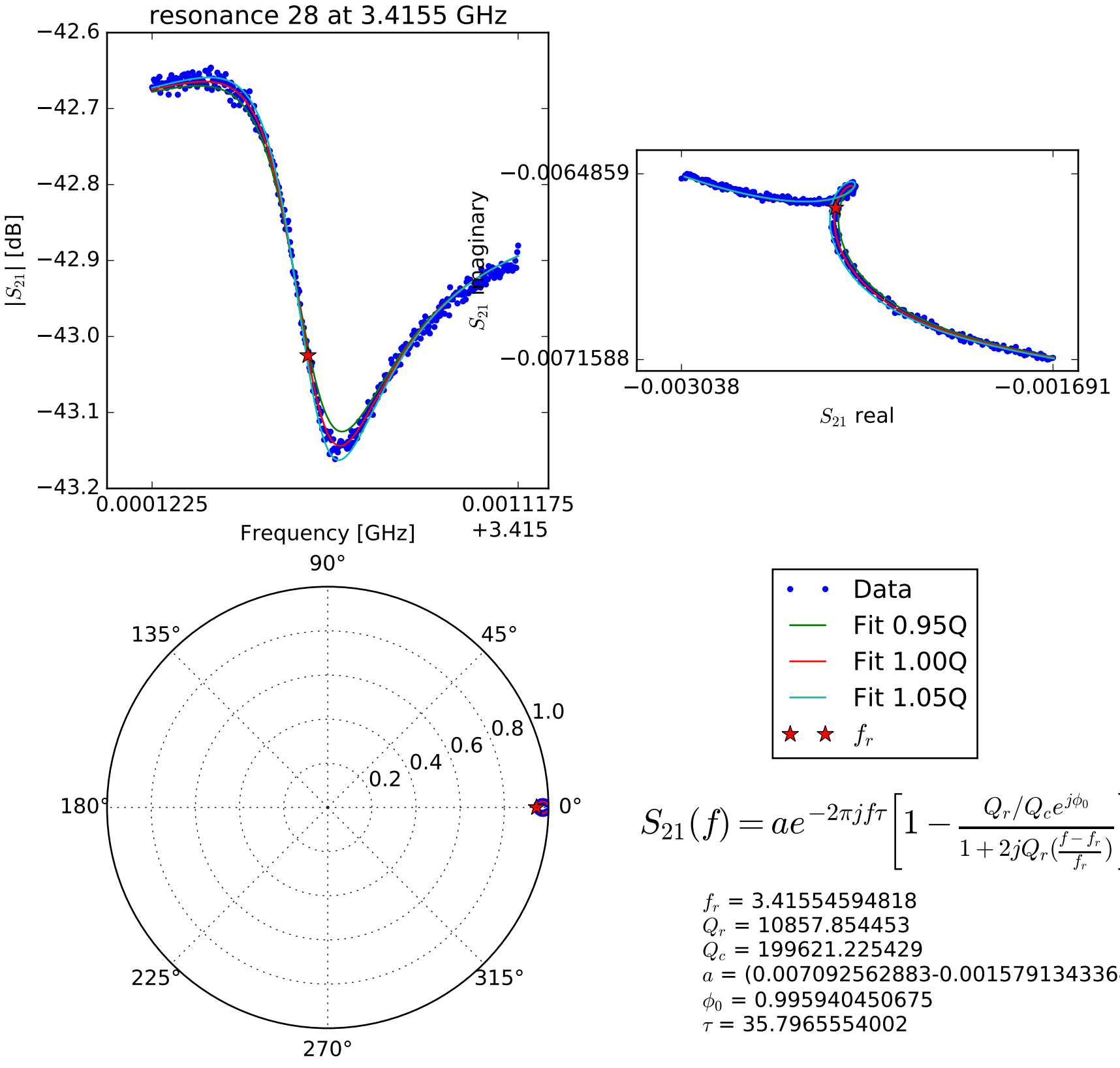



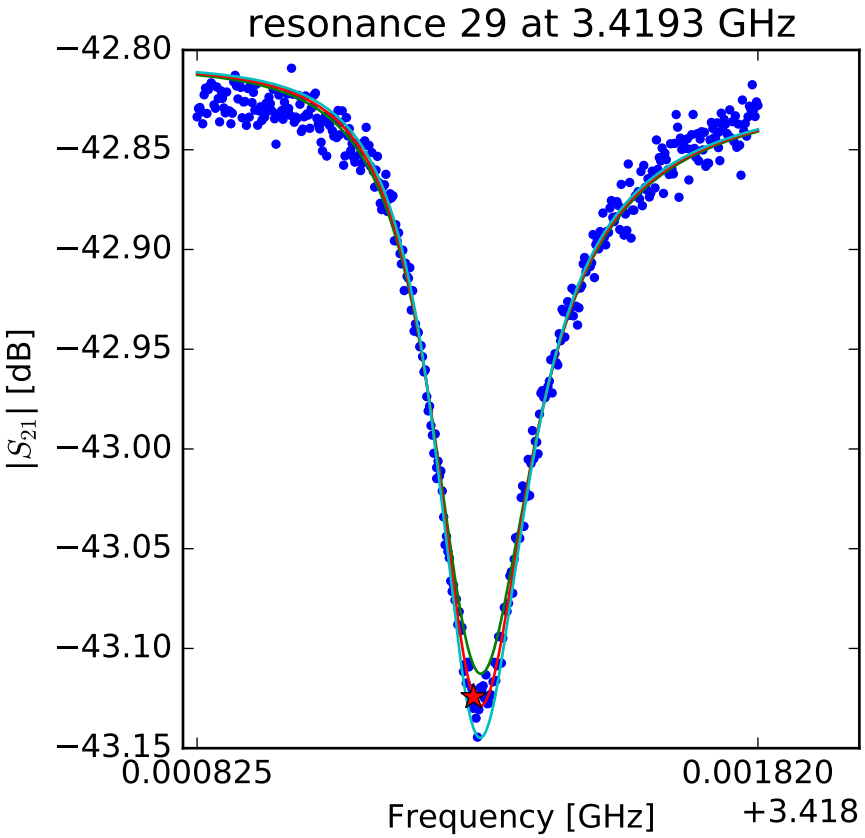

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

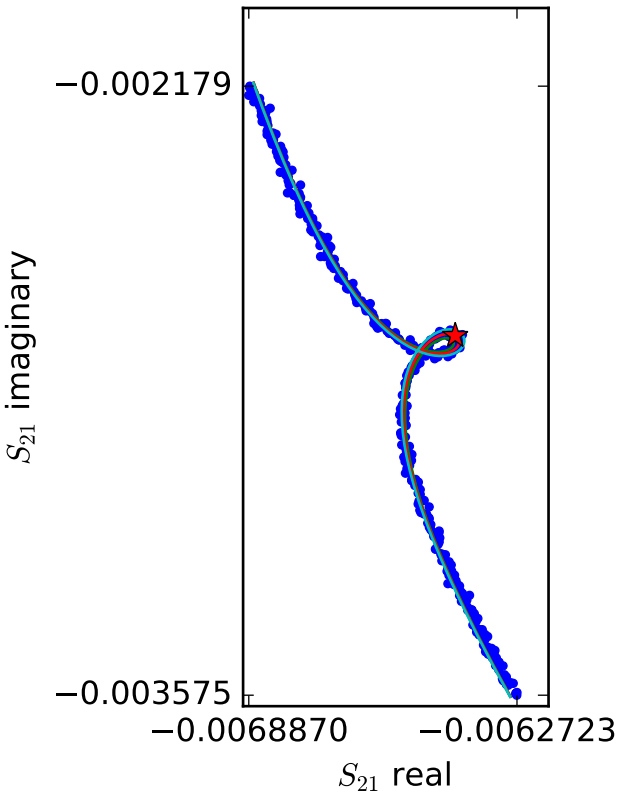
$f_r$ = 3.39556240182
$Q_r$ = 7379.79457395
$Q_c$ = 231929.334556
$a$ = (-0.00349382928973+0.00852935522672j)
$\phi_0$ = -5.5837649325
$\tau$ = 40.3041116581

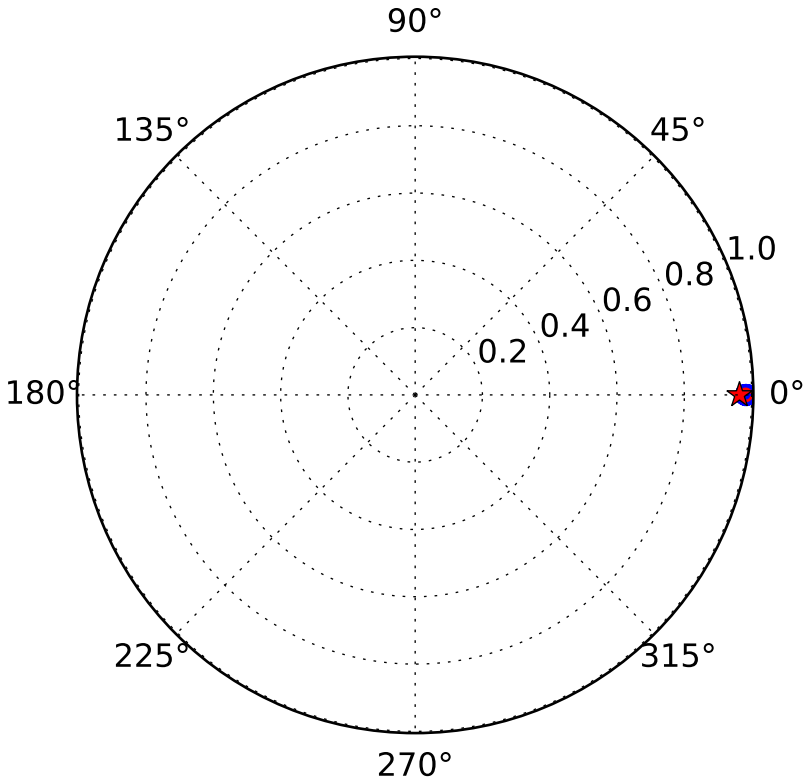


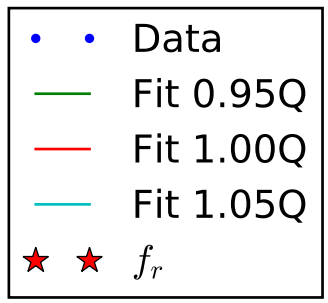

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.41554594818
$Q_r$ = 10857.854453
$Q_c$ = 199621.225429
$a$ = (0.007092562883-0.00157913433642j)
$\phi_0$ = 0.995940450675
$\tau$ = 35.7965554002



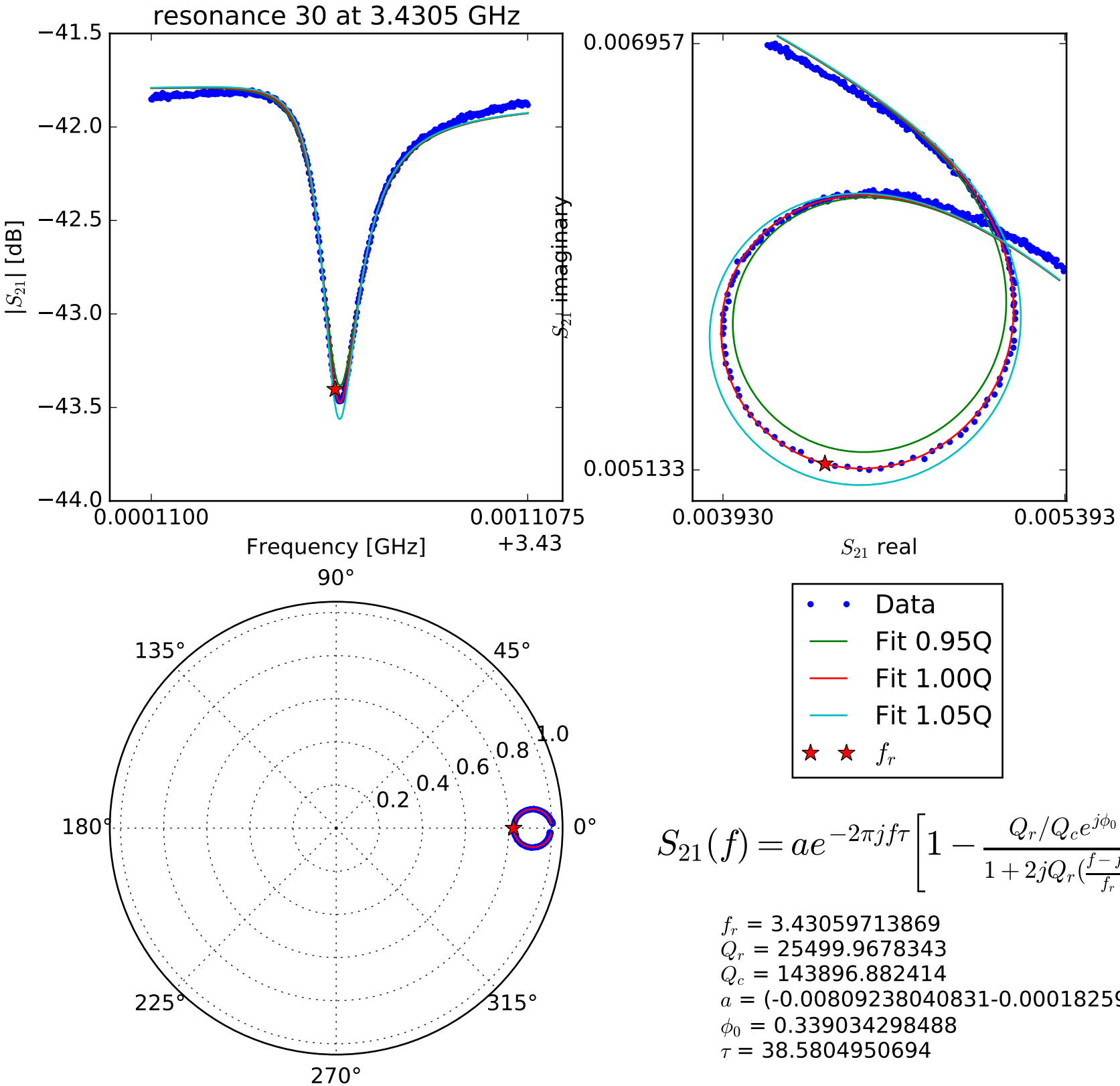



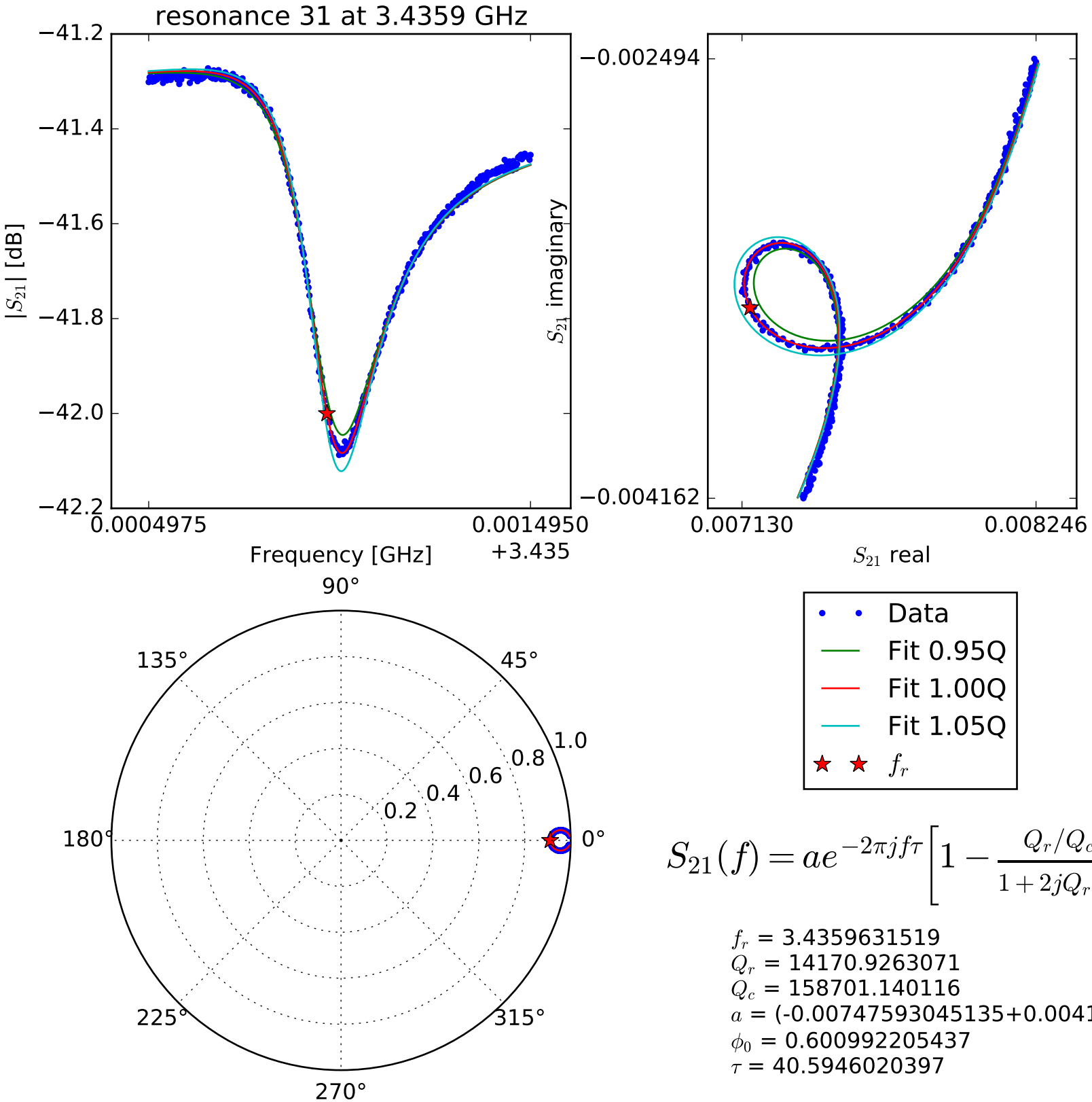

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.419315455
$Q_r$ = 16115.1205199
$Q_c$ = 445545.28894
$a$ = (0.00597931601679+0.00407065061682j)
$\phi_0$ = 0.229007696488
$\tau$ = 36.1269066194



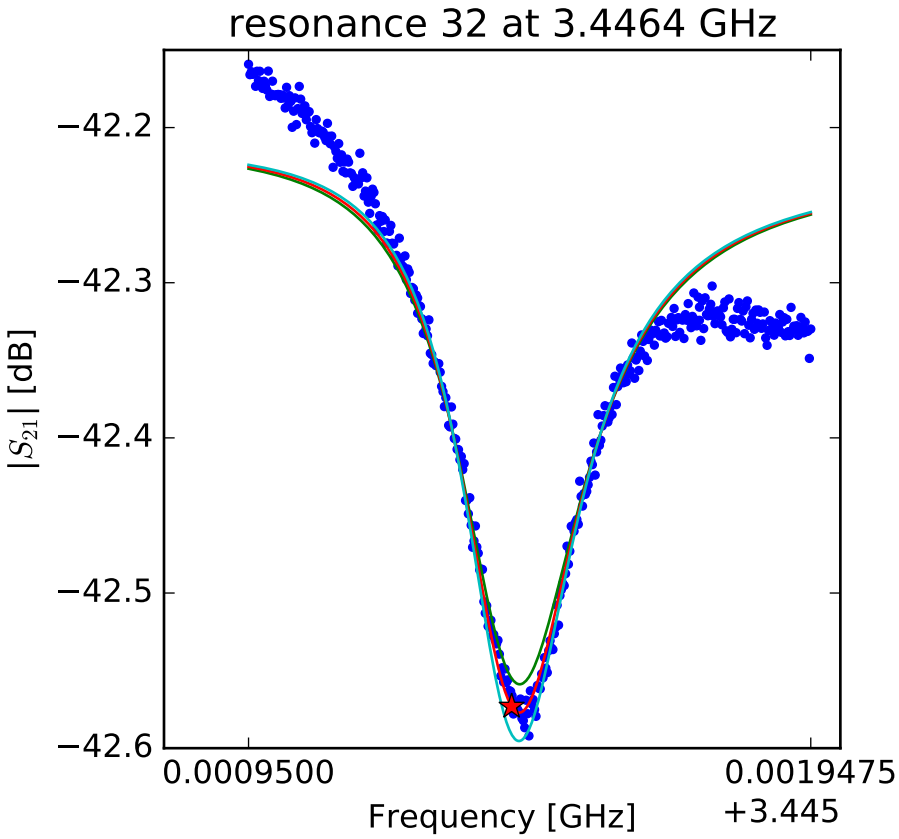

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

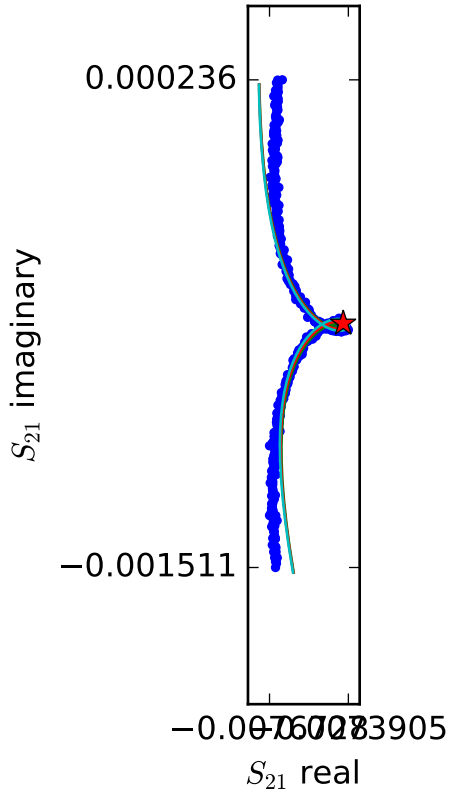
$f_r$ = 3.43059713869
$Q_r$ = 25499.9678343
$Q_c$ = 143896.882414
$a$ = (-0.00809238040831-0.000182595020699j)
$\phi_0$ = 0.339034298488
$\tau$ = 38.5804950694

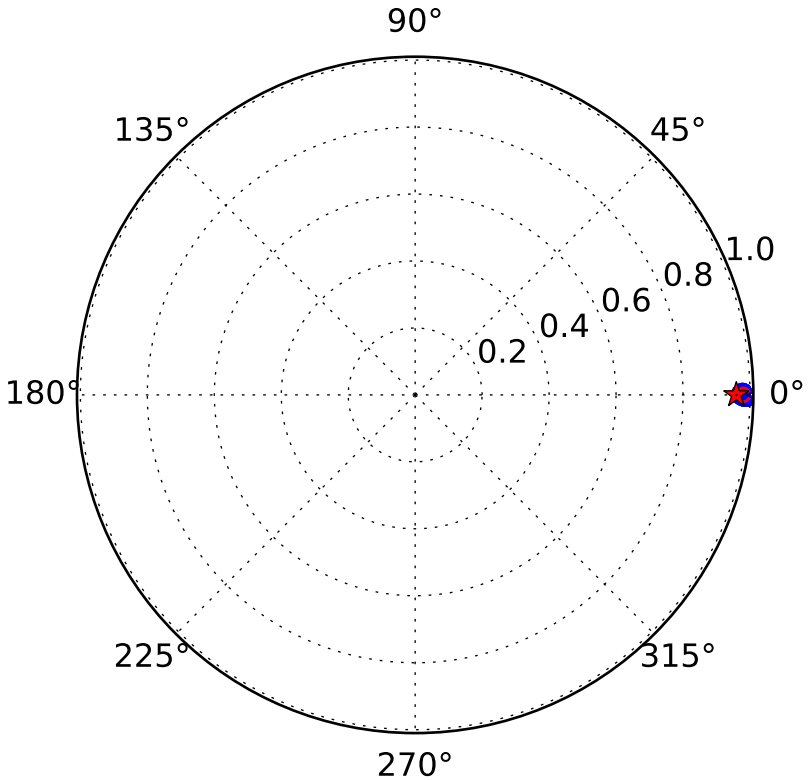


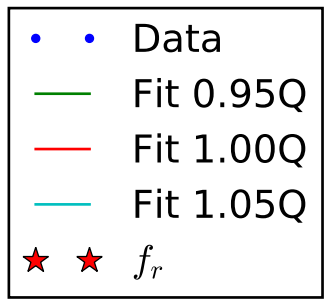

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.4359631519
$Q_r$ = 14170.9263071
$Q_c$ = 158701.140116
$a$ = (-0.00747593045135+0.00417345818751j)
$\phi_0$ = 0.600992205437
$\tau$ = 40.5946020397



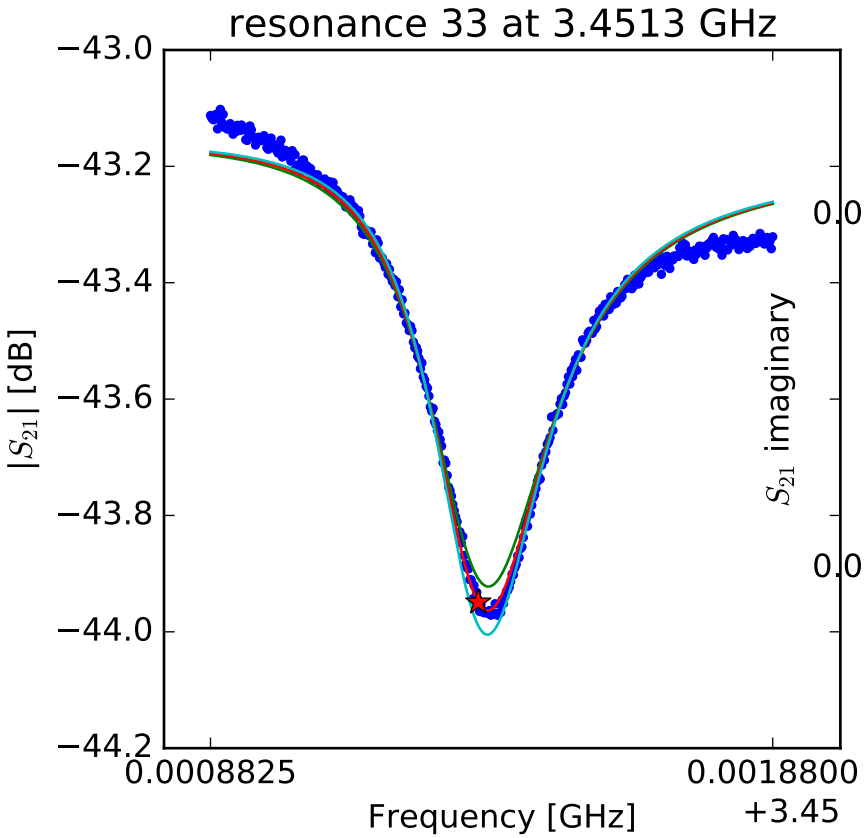



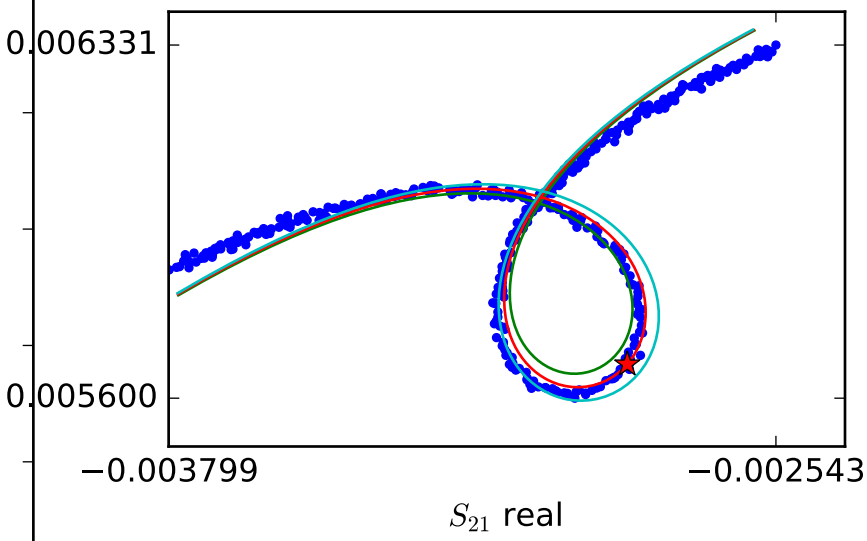



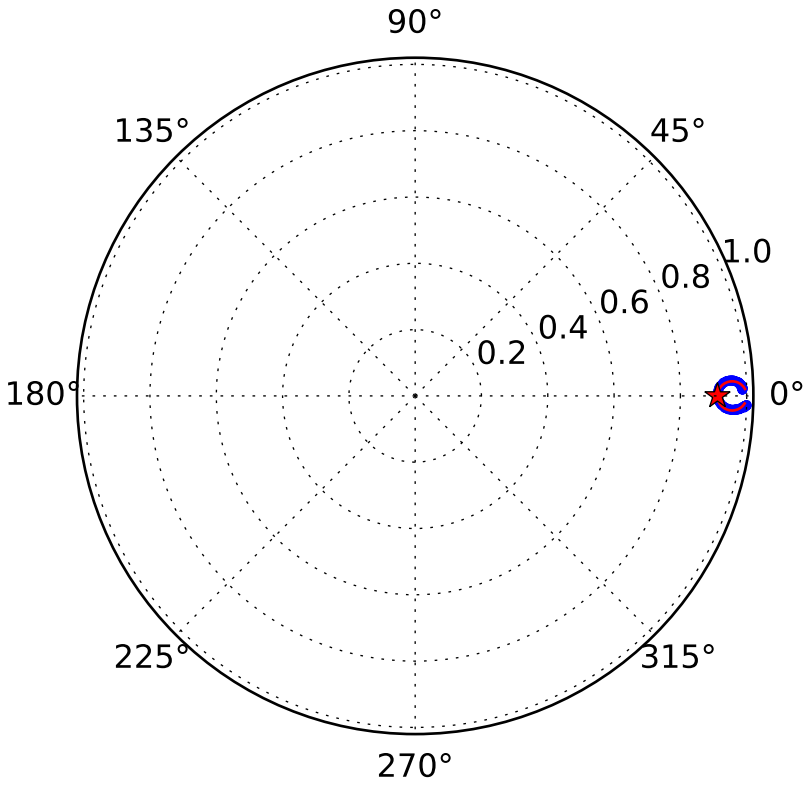



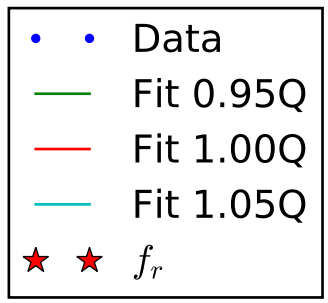

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.44641675873
$Q_r$ = 13068.1504377
$Q_c$ = 319916.868556
$a$ = (-0.00701181806417+0.00329118562382j)
$\phi_0$ = 0.20200124912
$\tau$ = 39.4366583812



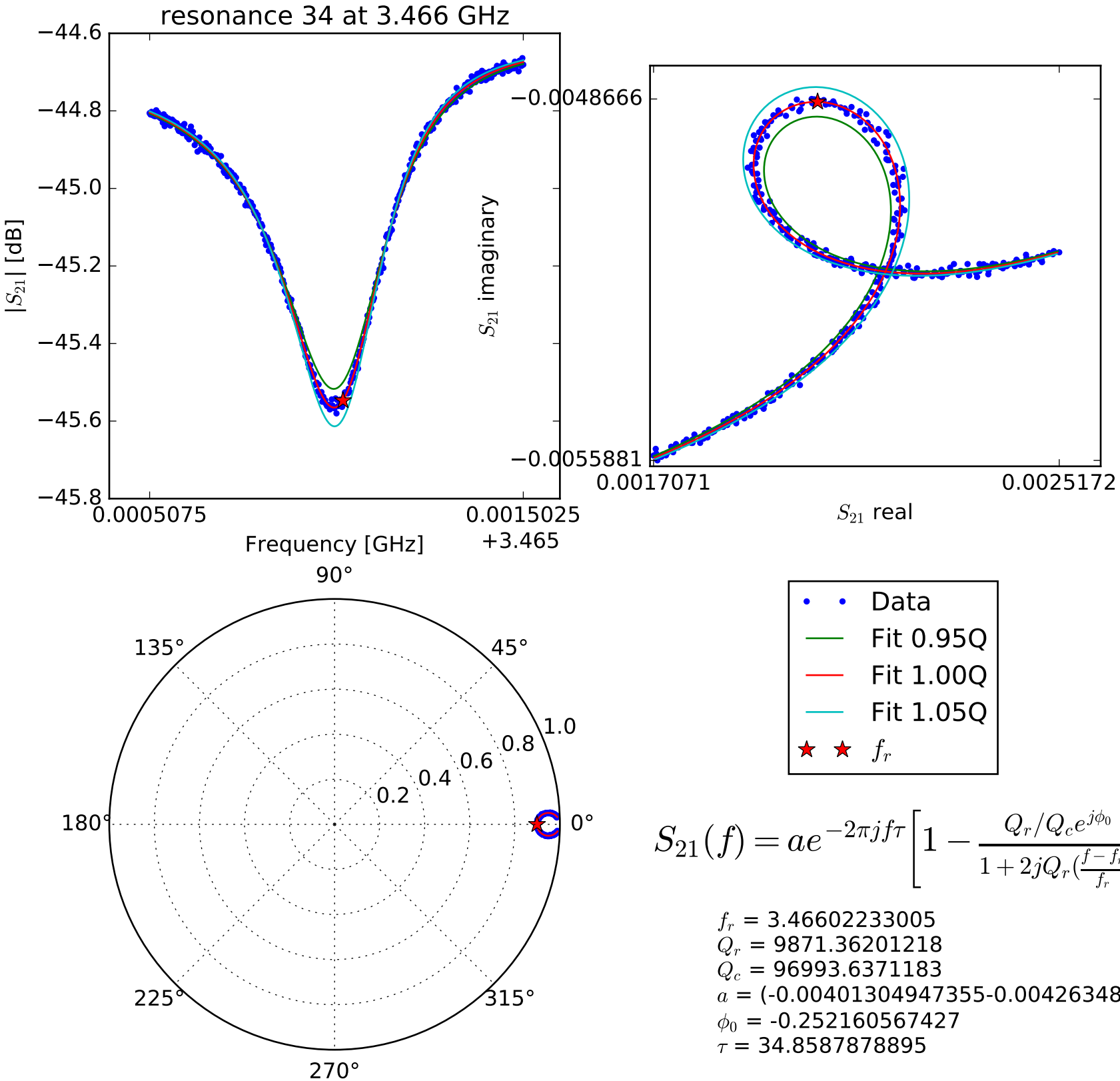



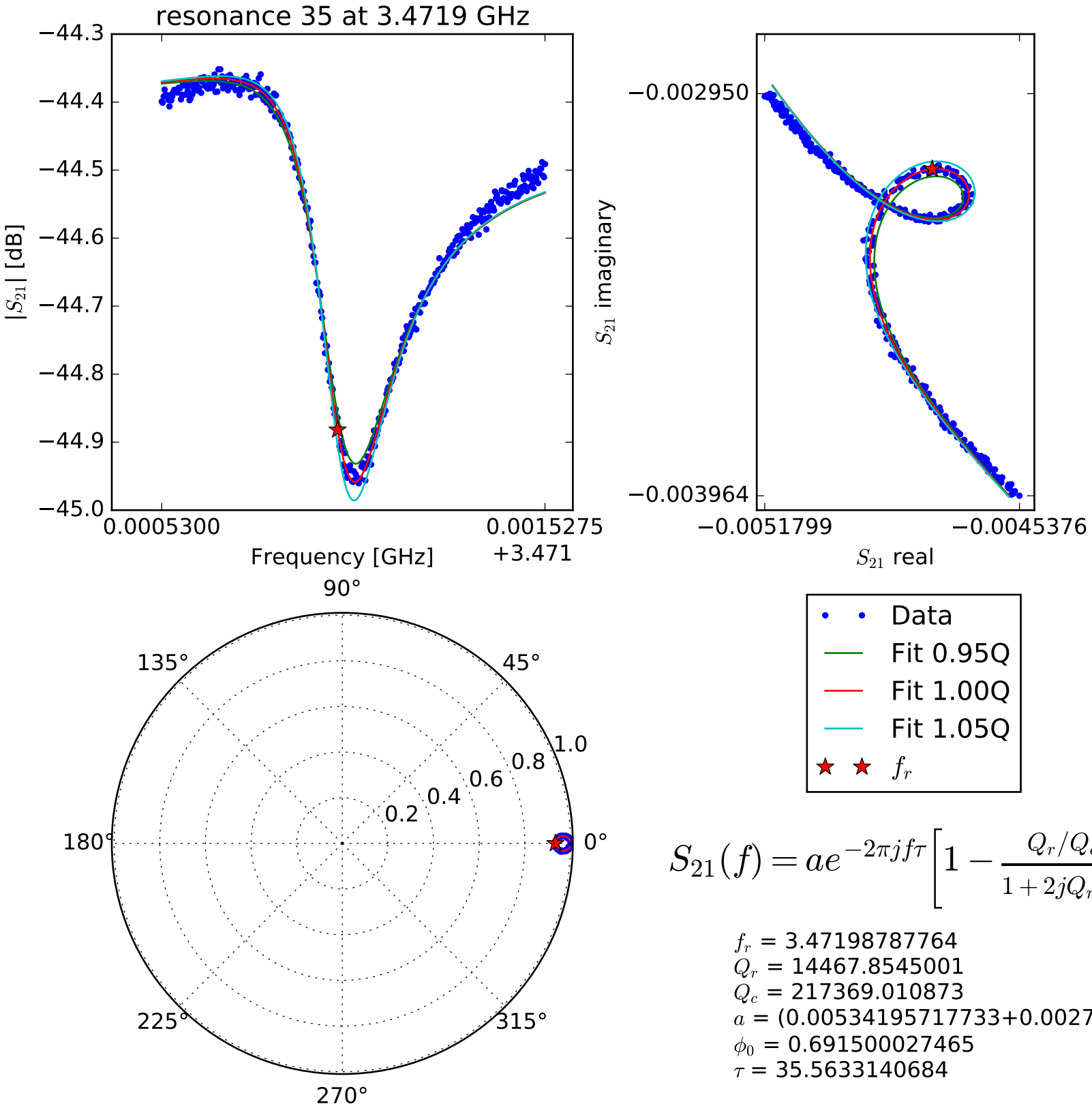

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.45135760999
$Q_r$ = 13016.2440564
$Q_c$ = 147538.782831
$a$ = (-0.00545025879202-0.00429423656957j)
$\phi_0$ = 0.244992333741
$\tau$ = 37.1675031459



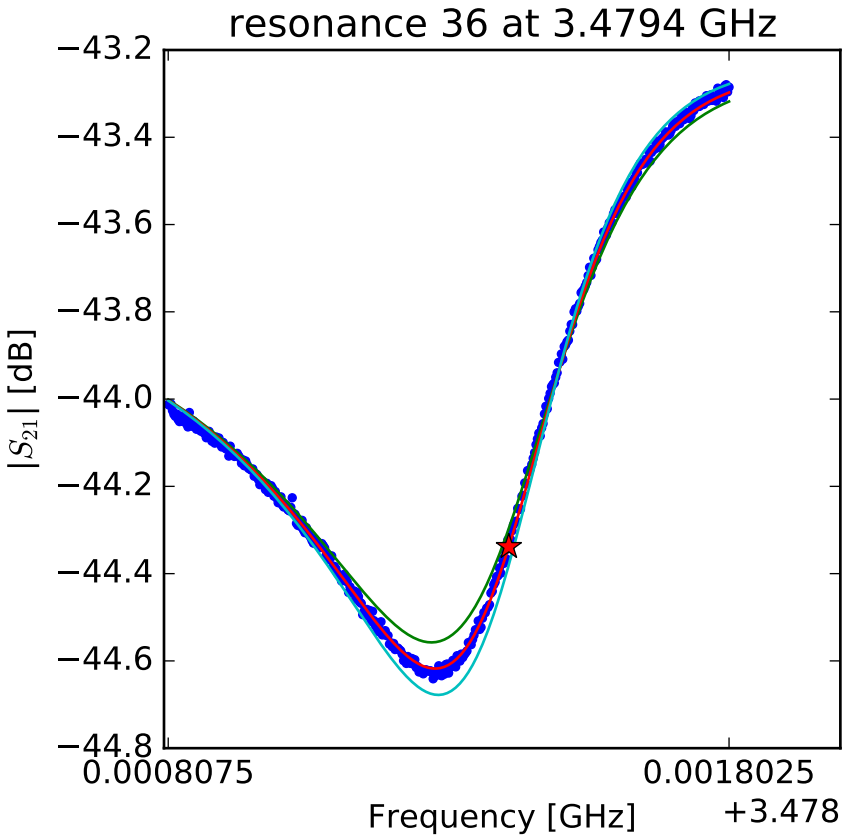

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

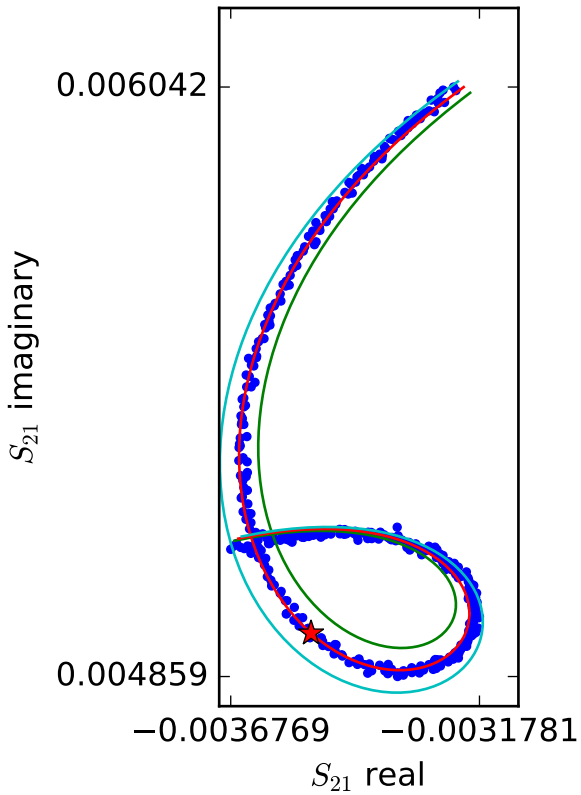
$f_r$ = 3.46602233005
$Q_r$ = 9871.36201218
$Q_c$ = 96993.6371183
$a$ = (-0.00401304947355-0.00426348554635j)
$\phi_0$ = -0.252160567427
$\tau$ = 34.8587878895

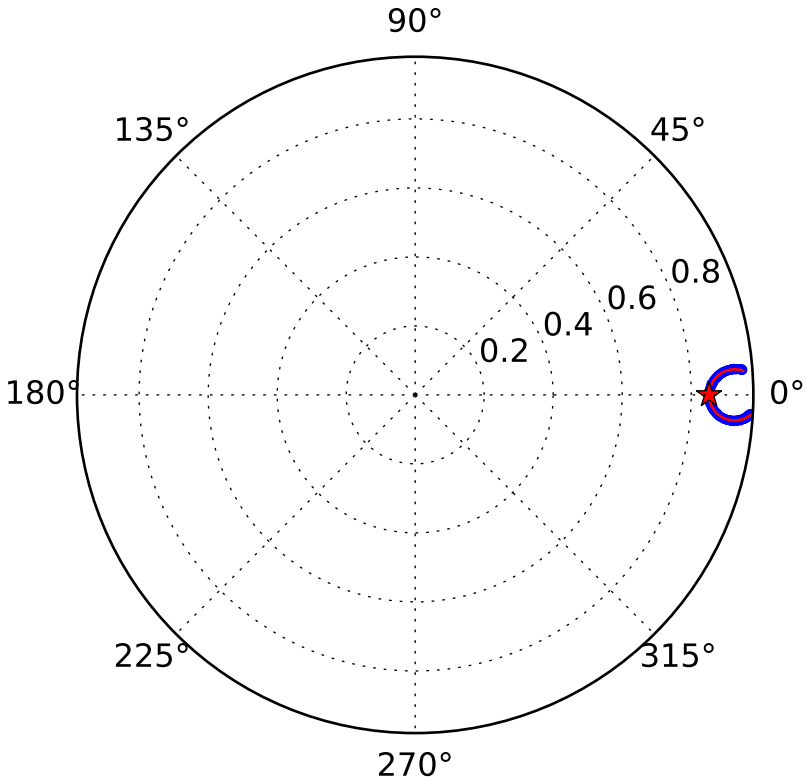


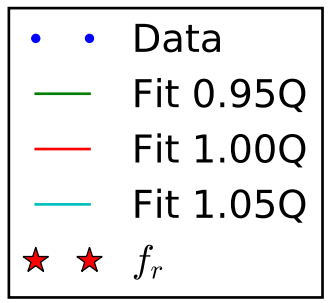

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.47198787764
$Q_r$ = 14467.8545001
$Q_c$ = 217369.010873
$a$ = (0.00534195717733+0.00273728142207j)
$\phi_0$ = 0.691500027465
$\tau$ = 35.5633140684



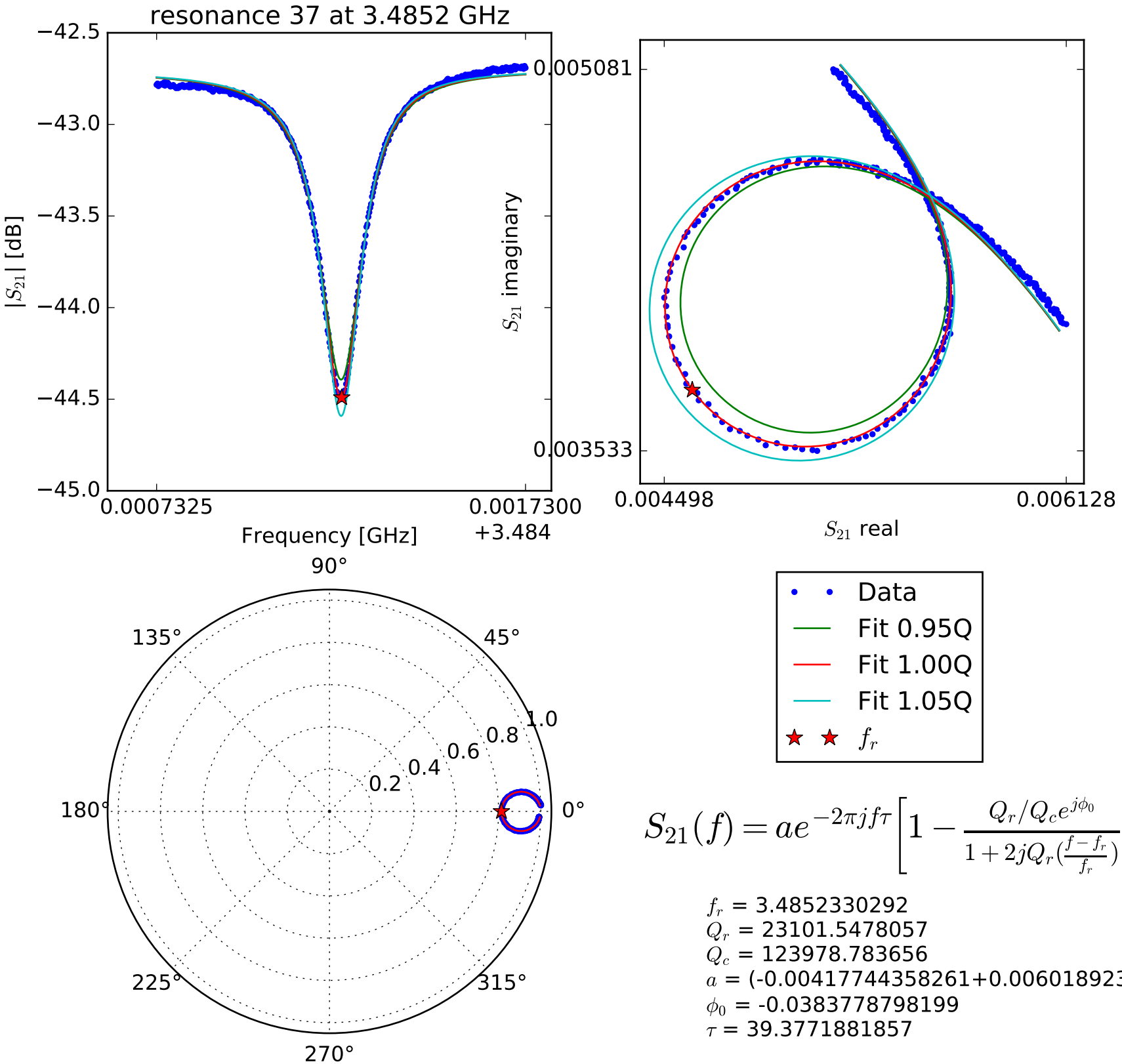



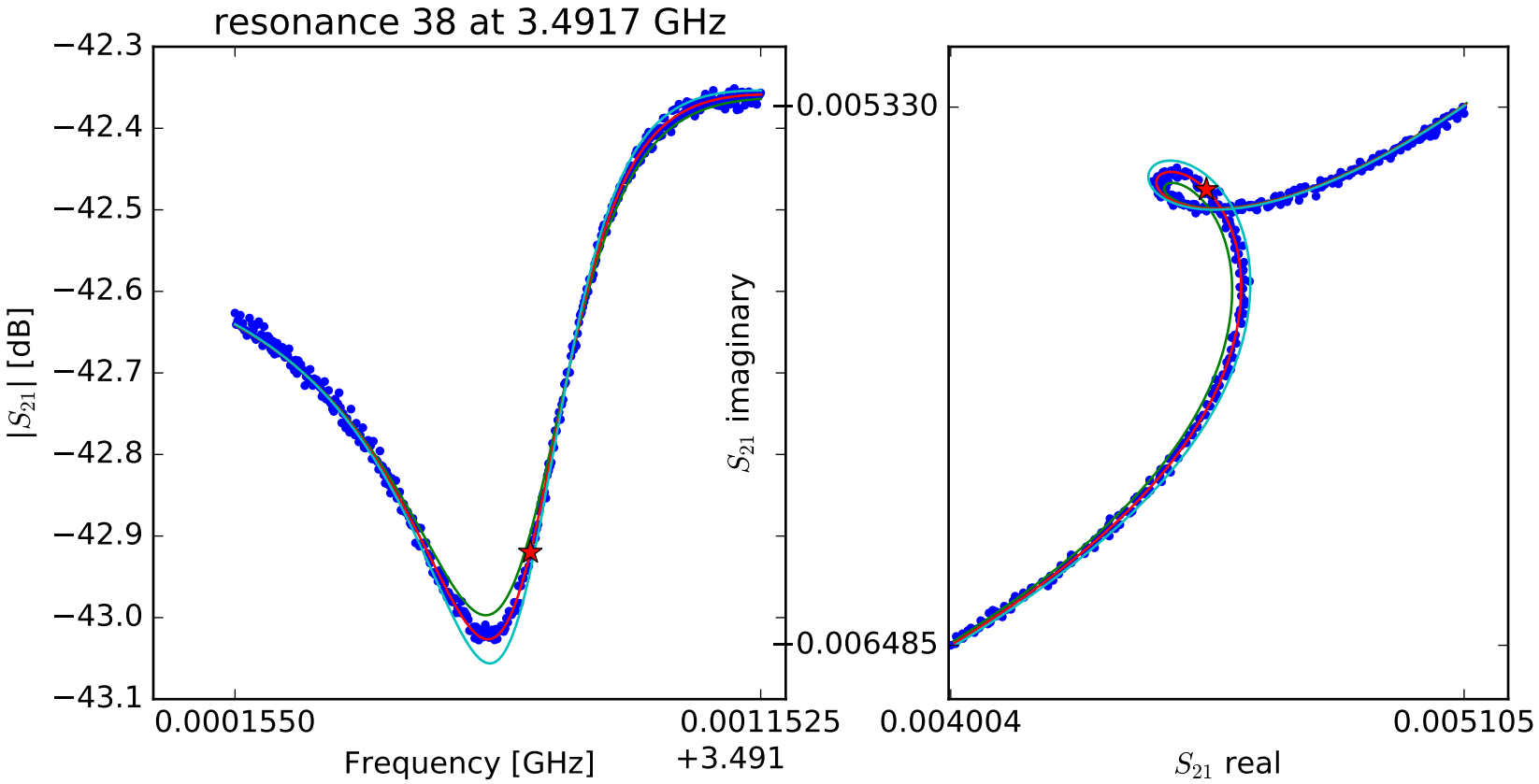

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

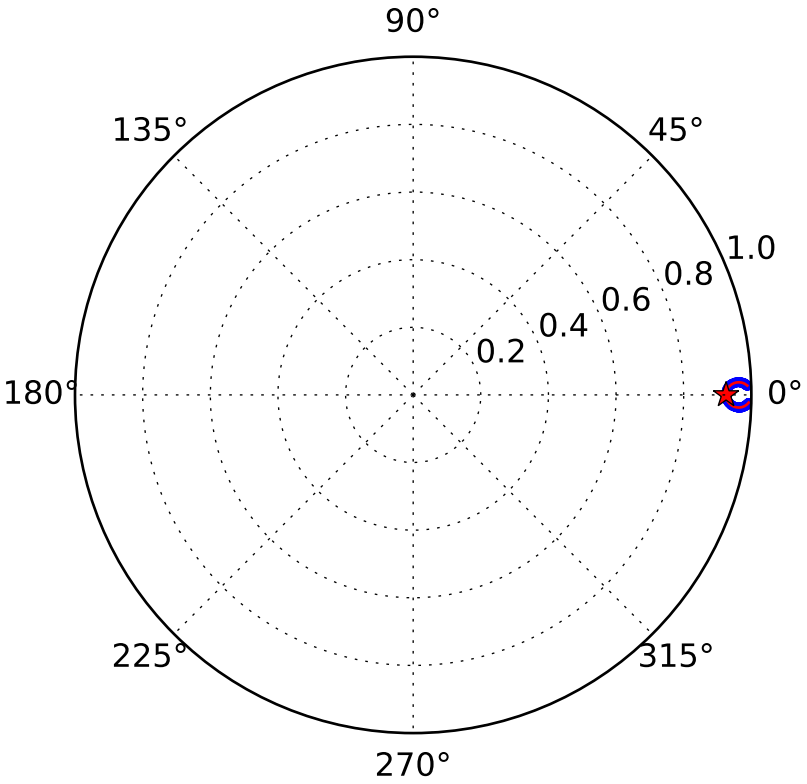
$f_r$ = 3.47941177046
$Q_r$ = 6248.0591759
$Q_c$ = 42117.8816474
$a$ = (-0.00148288551894-0.00653551359454j)
$\phi_0$ = -0.821804423158
$\tau$ = 37.4733693493

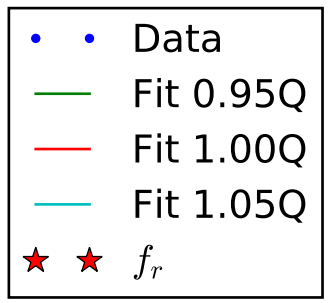



$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.4852330292
$Q_r$ = 23101.5478057
$Q_c$ = 123978.783656
$a$ = (-0.00417744358261+0.00601892372564j)
$\phi_0$ = -0.0383778798199
$\tau$ = 39.3771881857

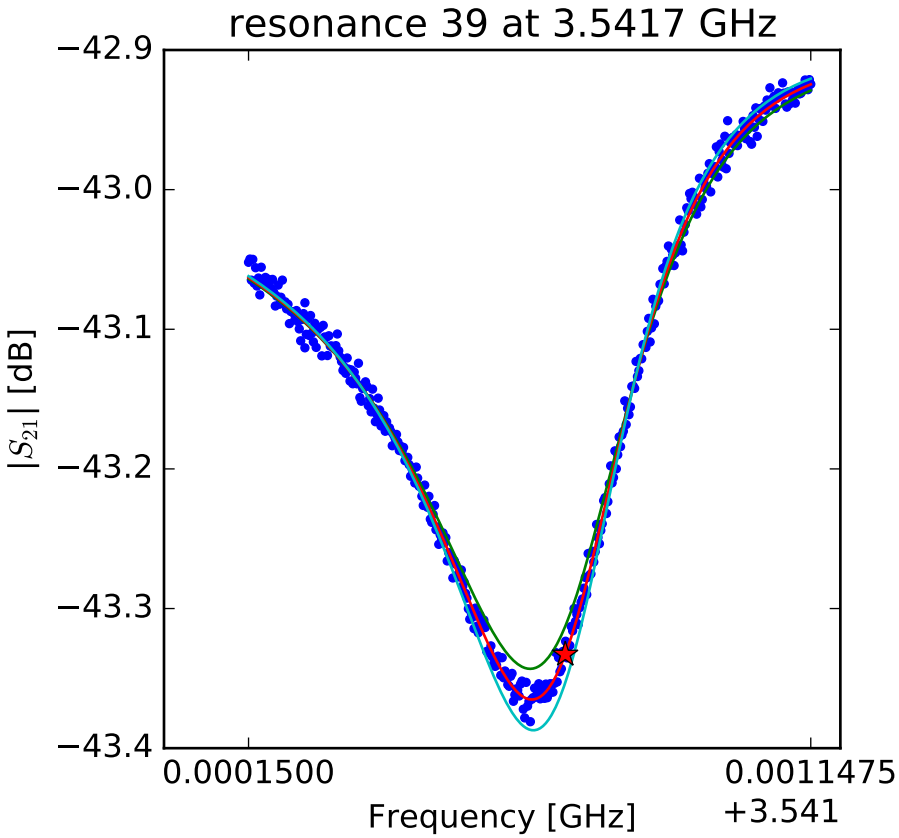


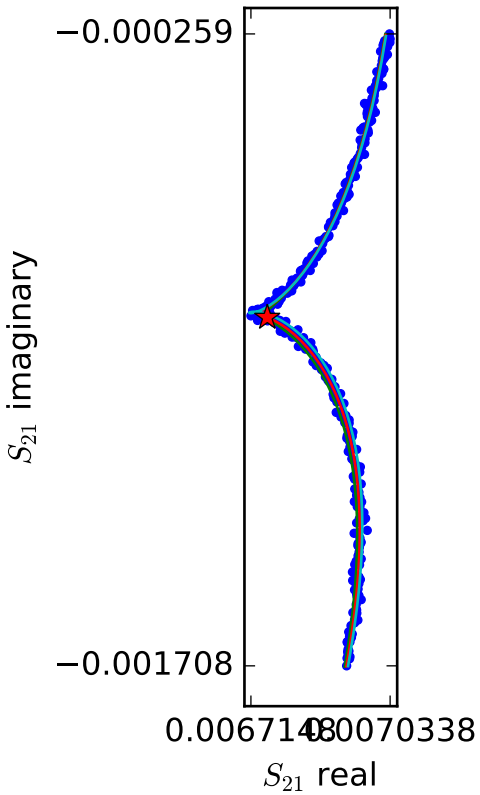



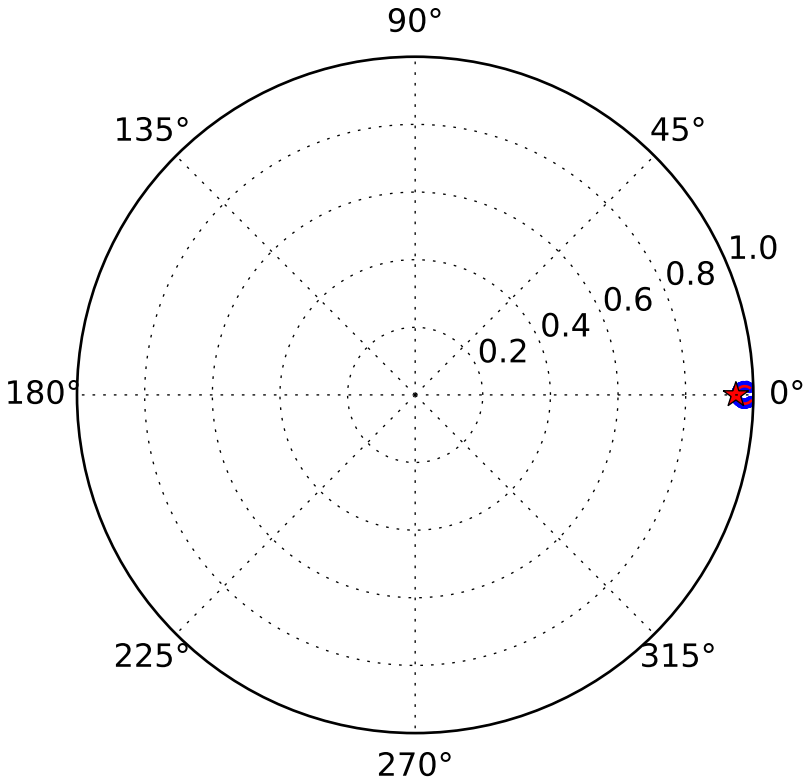



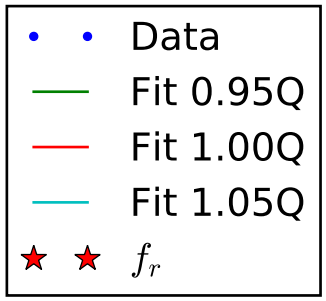

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.49171534235
$Q_r$ = 9114.90746901
$Q_c$ = 121780.987172
$a$ = (0.00349727667556-0.0066802641026j)
$\phi_0$ = -0.767741064323
$\tau$ = 39.8015097585



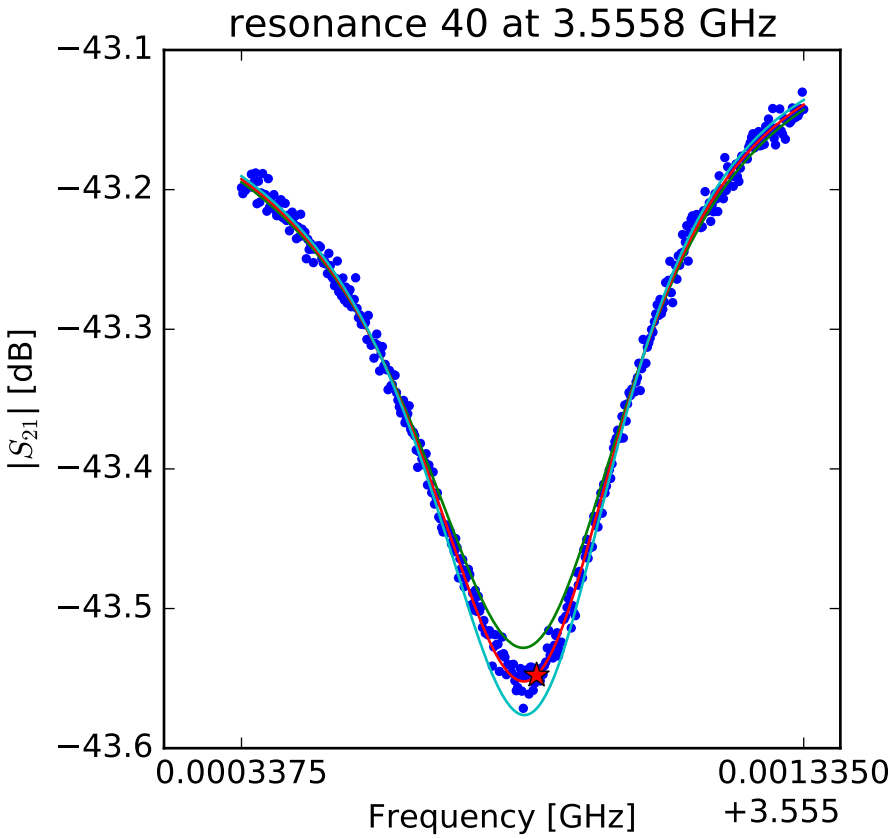



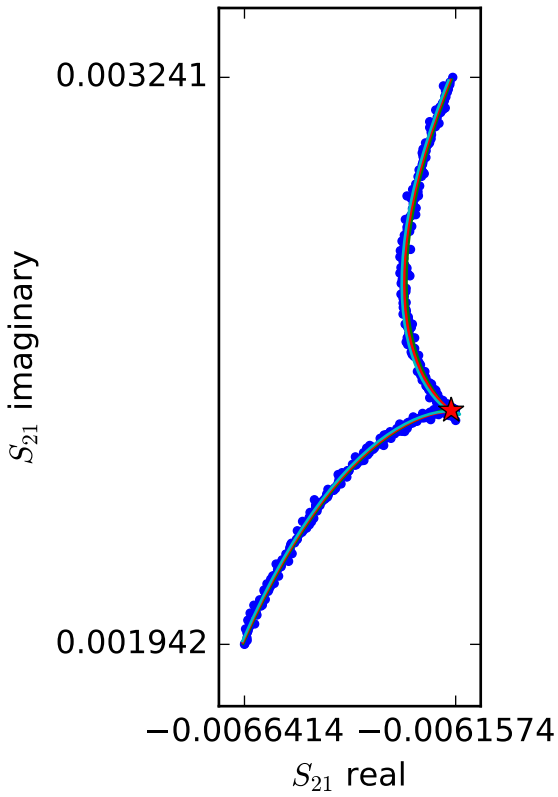



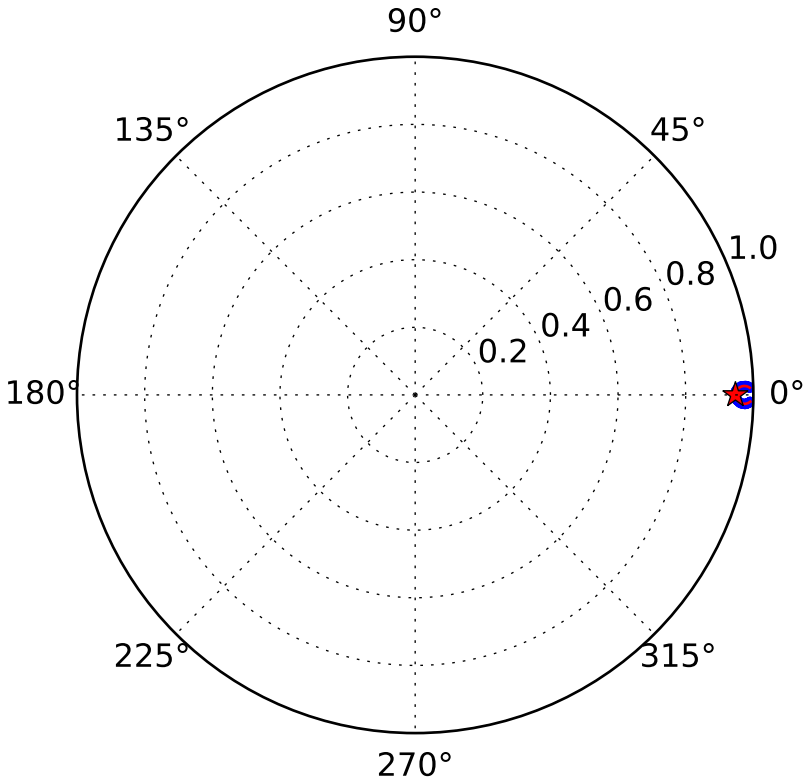



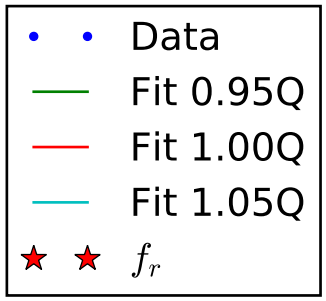

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.54171198079
$Q_r$ = 7991.39403467
$Q_c$ = 154620.57312
$a$ = (-0.00712534420318-0.000320598783784j)
$\phi_0$ = -0.510565838386
$\tau$ = 38.2675574035



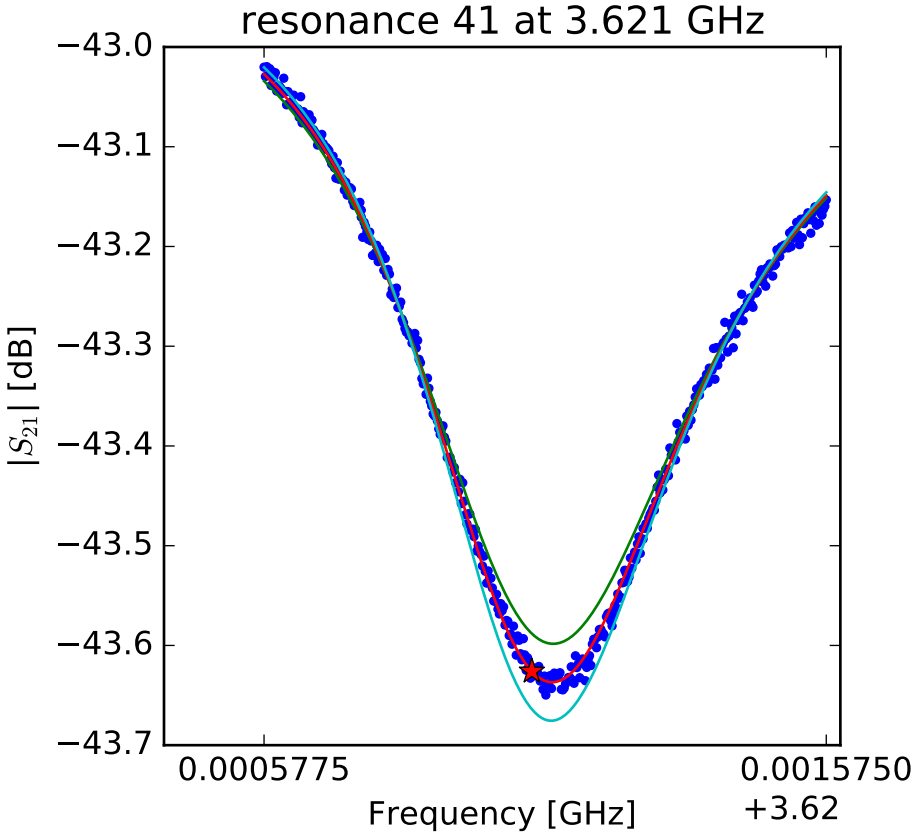



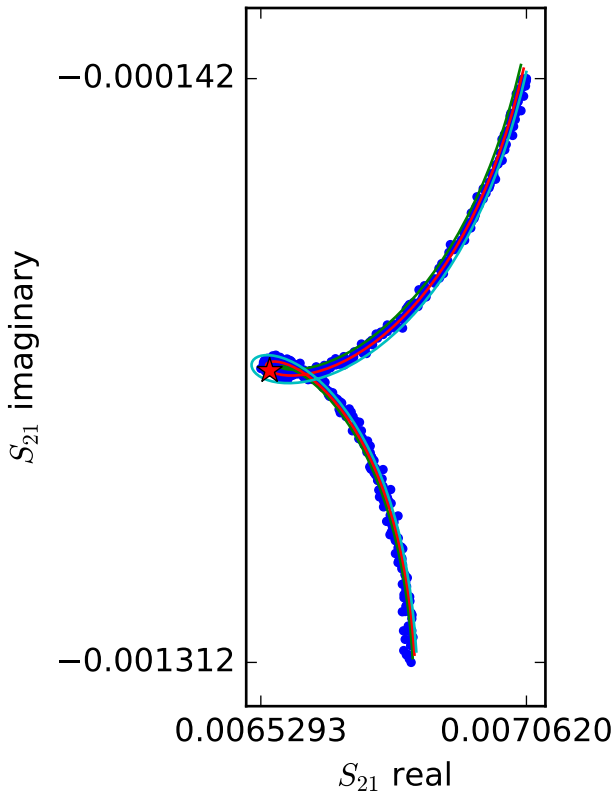



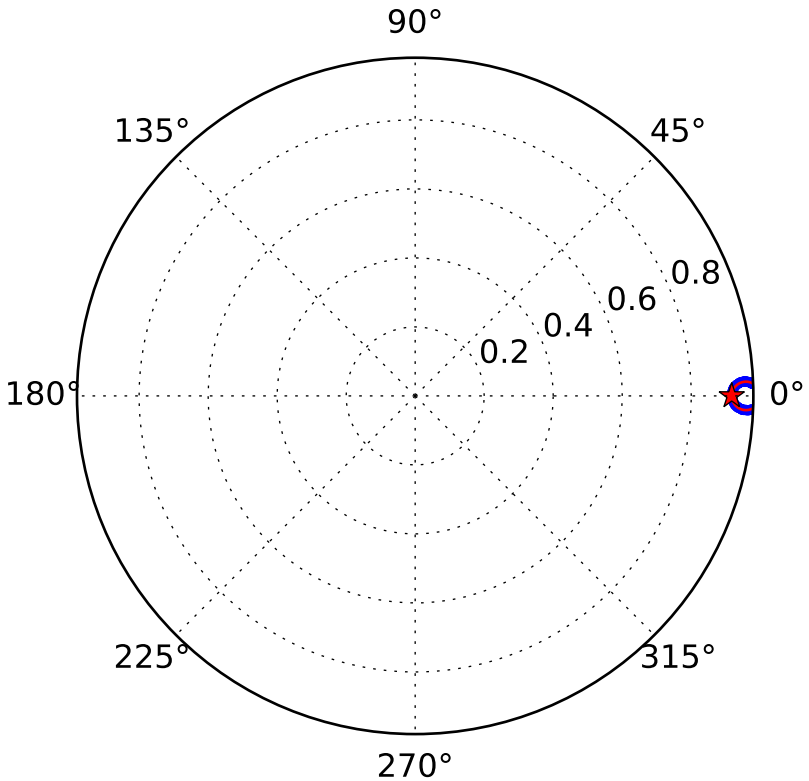



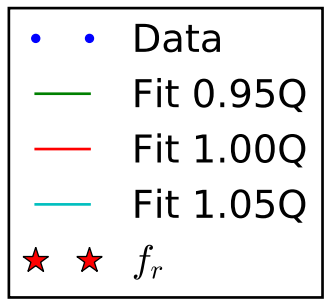

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.55586106878
$Q_r$ = 7446.4689781
$Q_c$ = 140521.239947
$a$ = (0.0044851556486+0.00538958477074j)
$\phi_0$ = -0.183978890619
$\tau$ = 38.1628985579



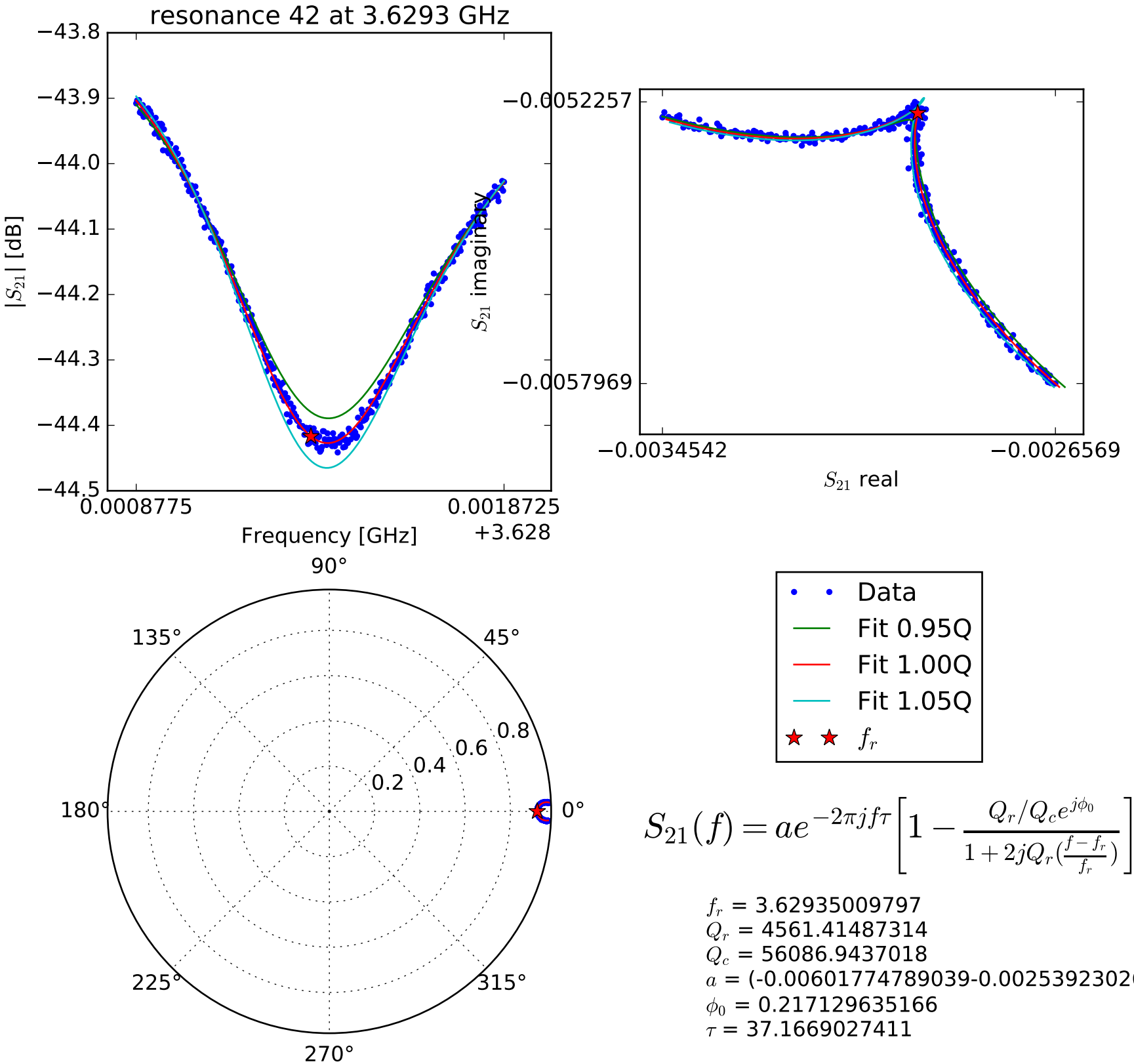



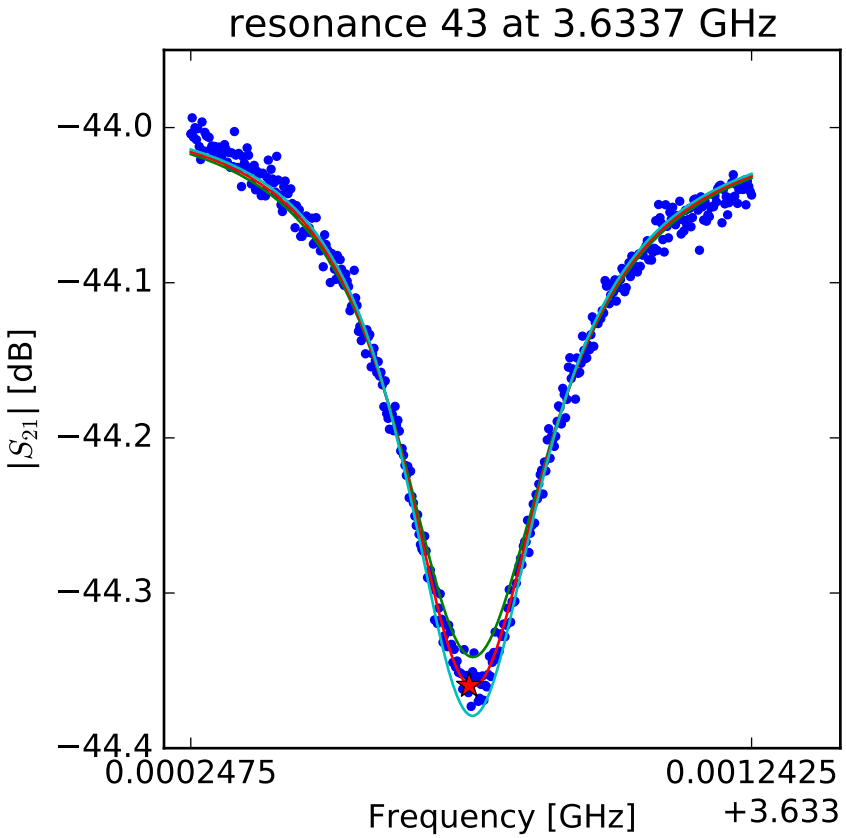

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

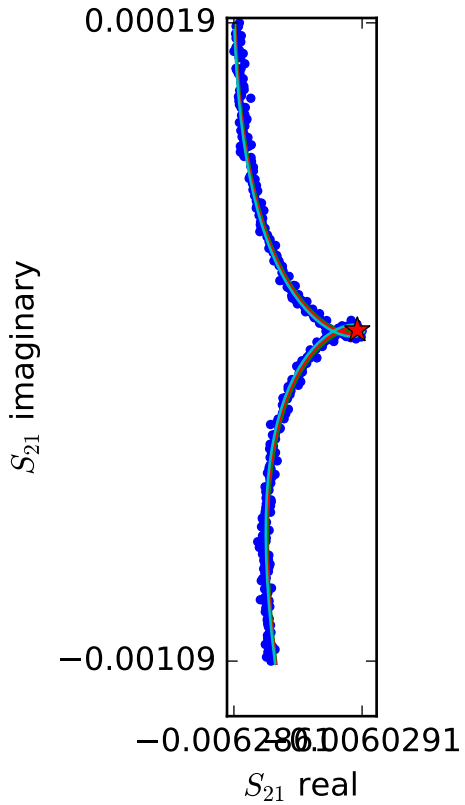
$f_r$ = 3.62105257938
$Q_r$ = 5844.21159717
$Q_c$ = 70717.9924442
$a$ = (-0.00362074975509+0.00618089516492j)
$\phi_0$ = 0.222455775792
$\tau$ = 39.0352766536

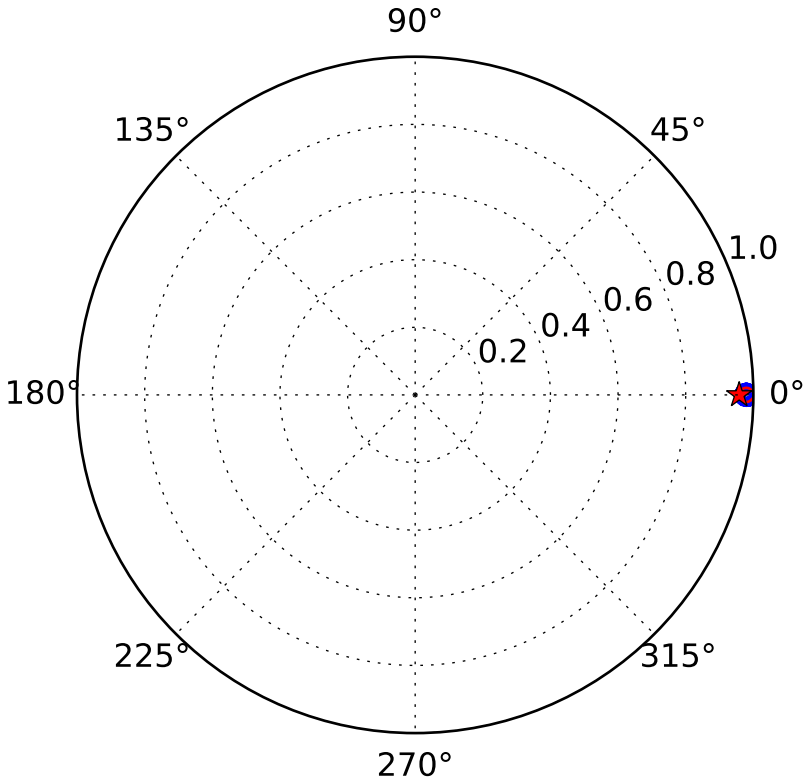


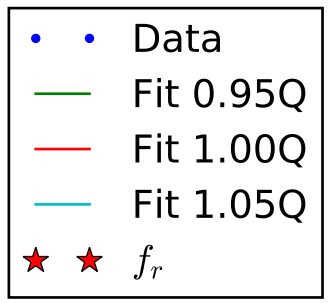

$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.62935009797
$Q_r$ = 4561.41487314
$Q_c$ = 56086.9437018
$a$ = (-0.00601774789039-0.00253923026375j)
$\phi_0$ = 0.217129635166
$\tau$ = 37.1669027411



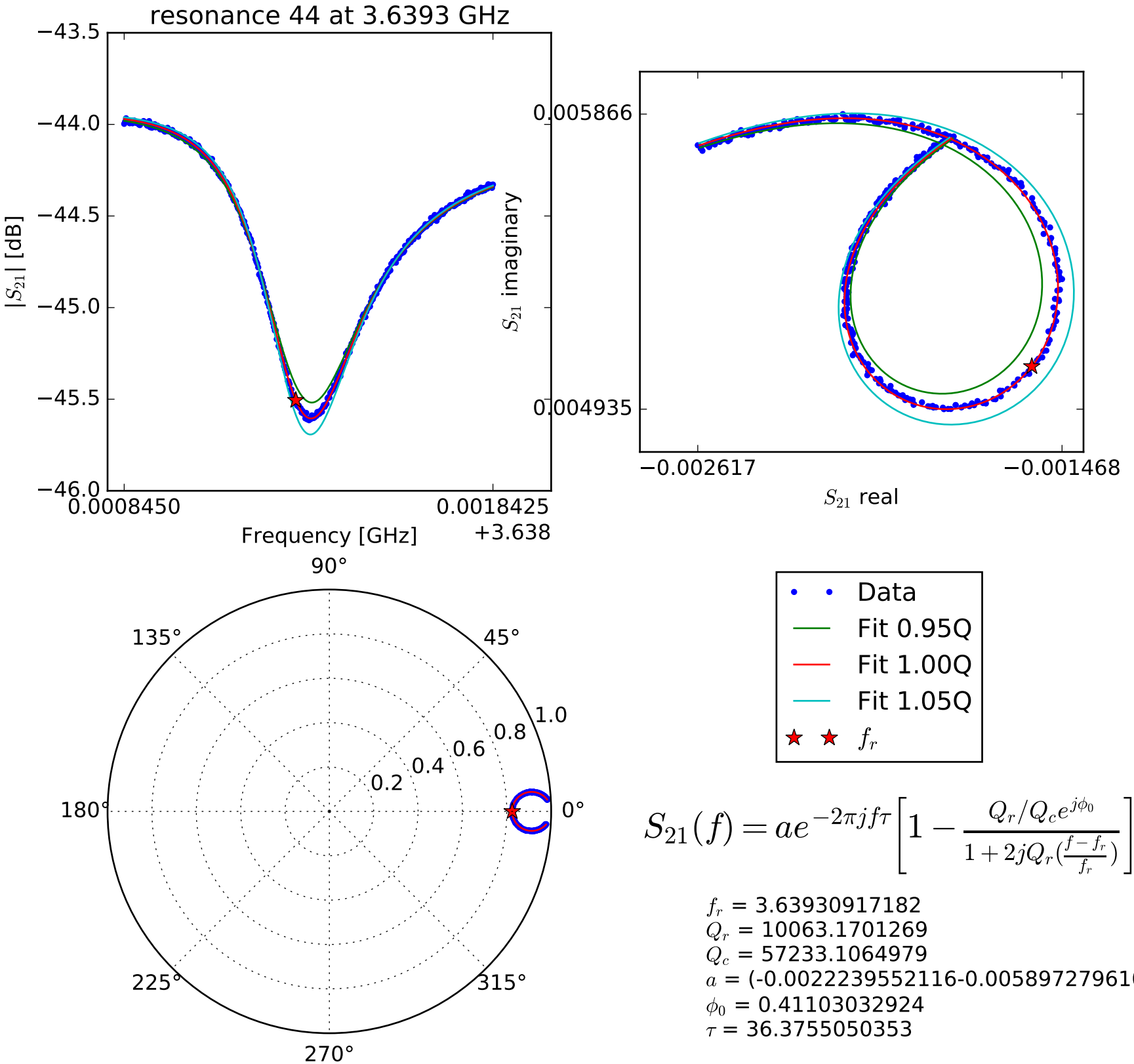




$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.63374140356
$Q_r$ = 11241.2581596
$Q_c$ = 268538.230169
$a$ = (-0.00609617784327-0.00165683023575j)
$\phi_0$ = 0.0764107563814
$\tau$ = 36.6097879562




$$S_{21}(f) = ae^{-2\pi jf\tau}\left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r(\frac{f-f_r}{f_r})}\right]$$

$f_r$ = 3.63930917182
$Q_r$ = 10063.1701269
$Q_c$ = 57233.1064979
$a$ = (-0.0022239552116-0.00589727961074j)
$\phi_0$ = 0.41103032924
$\tau$ = 36.3755050353