

A contour plot showing the log-likelihood function for the trait parameter. The x-axis is labeled 'trait' and ranges from 0 to 800. The y-axis ranges from 0 to 1000. The plot displays several nested contour lines, with the highest likelihood region (darkest blue) centered around a trait value of approximately 450 and a value of approximately 400 on the y-axis. The likelihood decreases as the trait value increases beyond 450 or decreases below 400, and as the y-axis value increases beyond 400 or decreases below 400. The contours are labeled with values such as -10.0, -10.5, -11.0, -11.5, -12.0, -12.5, -13.0, -13.5, -14.0, -14.5, -15.0, -15.5, -16.0, -16.5, -17.0, -17.5, -18.0, -18.5, -19.0, -19.5, -20.0, -20.5, -21.0, -21.5, -22.0, -22.5, -23.0, -23.5, -24.0, -24.5, -25.0, -25.5, -26.0, -26.5, -27.0, -27.5, -28.0, -28.5, -29.0, -29.5, -30.0, -30.5, -31.0, -31.5, -32.0, -32.5, -33.0, -33.5, -34.0, -34.5, -35.0, -35.5, -36.0, -36.5, -37.0, -37.5, -38.0, -38.5, -39.0, -39.5, -40.0, -40.5, -41.0, -41.5, -42.0, -42.5, -43.0, -43.5, -44.0, -44.5, -45.0, -45.5, -46.0, -46.5, -47.0, -47.5, -48.0, -48.5, -49.0, -49.5, -50.0, -50.5, -51.0, -51.5, -52.0, -52.5, -53.0, -53.5, -54.0, -54.5, -55.0, -55.5, -56.0, -56.5, -57.0, -57.5, -58.0, -58.5, -59.0, -59.5, -60.0, -60.5, -61.0, -61.5, -62.0, -62.5, -63.0, -63.5, -64.0, -64.5, -65.0, -65.5, -66.0, -66.5, -67.0, -67.5, -68.0, -68.5, -69.0, -69.5, -70.0, -70.5, -71.0, -71.5, -72.0, -72.5, -73.0, -73.5, -74.0, -74.5, -75.0, -75.5, -76.0, -76.5, -77.0, -77.5, -78.0, -78.5, -79.0, -79.5, -80.0, -80.5, -81.0, -81.5, -82.0, -82.5, -83.0, -83.5, -84.0, -84.5, -85.0, -85.5, -86.0, -86.5, -87.0, -87.5, -88.0, -88.5, -89.0, -89.5, -90.0, -90.5, -91.0, -91.5, -92.0, -92.5, -93.0, -93.5, -94.0, -94.5, -95.0, -95.5, -96.0, -96.5, -97.0, -97.5, -98.0, -98.5, -99.0, -99.5, -100.0, -100.5, -101.0, -101.5, -102.0, -102.5, -103.0, -103.5, -104.0, -104.5, -105.0, -105.5, -106.0, -106.5, -107.0, -107.5, -108.0, -108.5, -109.0, -109.5, -110.0, -110.5, -111.0, -111.5, -112.0, -112.5, -113.0, -113.5, -114.0, -114.5, -115.0, -115.5, -116.0, -116.5, -117.0, -117.5, -118.0, -118.5, -119.0, -119.5, -120.0, -120.5, -121.0, -121.5, -122.0, -122.5, -123.0, -123.5, -124.0, -124.5, -125.0, -125.5, -126.0, -126.5, -127.0, -127.5, -128.0, -128.5, -129.0, -129.5, -130.0, -130.5, -131.0, -131.5, -132.0, -132.5, -133.0, -133.5, -134.0, -134.5, -135.0, -135.5, -136.0, -136.5, -137.0, -137.5, -138.0, -138.5, -139.0, -139.5, -140.0, -140.5, -141.0, -141.5, -142.0, -142.5, -143.0, -143.5, -144.0, -144.5, -145.0, -145.5, -146.0, -146.5, -147.0, -147.5, -148.0, -148.5, -149.0, -149.5, -150.0, -150.5, -151.0, -151.5, -152.0, -152.5, -153.0, -153.5, -154.0, -154.5, -155.0, -155.5, -156.0, -156.5, -157.0, -157.5, -158.0, -158.5, -159.0, -159.5, -160.0, -160.5, -161.0, -161.5, -162.0, -162.5, -163.0, -163.5, -164.0, -164.5, -165.0, -165.5, -166.0, -166.5, -167.0, -167.5, -168.0, -168.5, -169.0, -169.5, -170.0, -170.5, -171.0, -171.5, -172.0, -172.5, -173.0, -173.5, -174.0, -174.5, -175.0, -175.5, -176.0, -176.5, -177.0, -177.5, -178.0, -178.5, -179.0, -179.5, -180.0, -180.5, -181.0, -181.5, -182.0, -182.5, -183.0, -183.5, -184.0, -184.5, -185.0, -185.5, -186.0, -186.5, -187.0, -187.5, -188.0, -188.5, -189.0, -189.5, -190.0, -190.5, -191.0, -191.5, -192.0, -192.5, -193.0, -193.5, -194.0, -194.5, -195.0, -195.5, -196.0, -196.5, -197.0, -197.5, -198.0, -198.5, -199.0, -199.5, -200.0, -200.5, -201.0, -201.5, -202.0, -202.5, -203.0, -203.5, -204.0, -204.5, -205.0, -205.5, -206.0, -206.5, -207.0, -207.5, -208.0, -208.5, -209.0, -209.5, -210.0, -210.5, -211.0, -211.5, -212.0, -212.5, -213.0, -213.5, -214.0, -214.5, -215.0, -215.5, -216.0, -216.5, -217.0, -217.5, -218.0, -218.5, -219.0, -219.5, -220.0, -220.5, -221.0, -221.5, -222.0, -222.5, -223.0, -223.5, -224.0, -224.5, -225.0, -225.5, -226.0, -226.5, -227.0, -227.5, -228.0, -228.5, -229.0, -229.5, -230.0, -230.5, -231.0, -231.5, -232.0, -232.5, -233.0, -233.5, -234.0, -234.5, -235.0, -235.5, -236.0, -236.5, -237.0, -237.5, -238.0, -238.5, -239.0, -239.5, -240.0, -240.5, -241.0, -241.5, -242.0, -242.5, -243.0, -243.5, -244.0, -244.5, -245.0, -245.5, -246.0, -246.5, -247.0, -247.5, -248.0, -248.5, -249.0, -249.5, -250.0, -250.5, -251.0, -251.5, -252.0, -252.5, -253.0, -253.5, -254.0, -254.5, -255.0, -255.5, -256.0, -256.5, -257.0, -257.5, -258.0, -258.5, -259.0, -259.5, -260.0, -260.5, -261.0, -261.5, -262.0, -262.5, -263.0, -263.5, -264.0, -264.5, -265.0, -265.5, -266.0, -266.5, -267.0, -267.5, -268.0, -268.5, -269.0, -269.5, -270.0, -270.5, -271.0, -271.5, -272.0, -272.5, -273.0, -273.5, -274.0, -274.5, -275.0, -275.5, -276.0, -276.5, -277.0, -277.5, -278.0, -278.5, -279.0, -279.5, -280.0, -280.5, -281.0, -281.5, -282.0, -282.5, -283.0, -283.5, -284.0, -284.5, -285.0, -285.5, -286.0, -286.5, -287.0, -287.5, -288.0, -288.5, -289.0, -289.5, -290.0, -290.5, -291.0, -291.5, -292.0, -292.5, -293.0, -293.5, -294.0, -294.5, -295.0, -295.5, -296.0, -296.5, -297.0, -297.5, -298.0, -298.5, -299.0, -299.5, -300.0, -300.5, -301.0, -301.5, -302.0, -302.5, -303.0, -303.5, -

