

[geoide@ipmtf63 tclight]\$ **./tclLight**

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.....TCLIGHT ver. 3.0.....

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REMOVE Procedure or RESTORE Procedure (1-2) ? **1**

-> DTM File

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INPUT DTM FILE: **etna_igmi.dat**

-> Sparse Stations

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TC ESTIMATES ON GRID OR SPARSE STATIONS (1-2) ? **2**

INPUT FILE CONTAINING STATION COORDINATES: **etna_igmi.fl**

STATION HEIGHTS: FROM FILE OR BY DTM INTERPOLATION (1-2) ?

MIN DIST BETWEEN COMPUTATION STATIONS AND DTM BOUNDARIES (M): **2**
5000

-> Density for the terrain

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TERRAIN DENSITY (GR/CM**3): **2.67**

-> Epsilon O

.....

APRIORI E0 (=0: NO APRIORI E0):

MAX VARIOGRAM VALUE FOR INNER DOMAIN DEFINITION: **0**
0.75

MAX RADIUS FOR VARIOGRAM SEARCHING: **10000**

-> DTM computation in Inner Domain

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BILINEAR INNER INTEGRATION: PRISM NUMBER (ODD): 15

-> DTM computation in Outer Domain
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RADIUS FOR USING AVERAGED DTM IN OUTER INTEGRAL COMPUTATION (0: NO AVERAGE): 0

COMPLETE TOPOGRAPHIC CORRECTION OR WITHOUT BOUGUER PLATE (1-2) ? 1

-> Zero padding
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FFT COMPUTATION: ZERO PADDING ($0.5 < ZP < 1$): 0.5

-> Partial Result
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SAVE PARTIAL RESULTS (1 YES -2 NO) ? 1

-> Output files
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OUTPUT FILE NAME
etnapoints

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... working : REMOVE
.....
(From here on is the screen output)
.....

WAIT....
Load DTM file

---> DTM <---
X min -> 4150050.000
X max -> 4199950.00000
Y min -> 470050.00000
Y max -> 529950.00000
Xdx -> 100.00000
Ydx -> 100.00000

---> DTM Heights <---
Num -> 300000
Mean -> 590.73551
RMS -> 554.68624

Min -> 0.00000
Max -> 3293.00000

-> Load DTM file - Working for 0.1 seconds

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... working : REMOVE
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WAIT....
Load Sparse Station file

---> Sparse Point file <---
Number of Sparse points -> 120001

---> Sparse Point file <---
Number of Sparse points accepted -> 120000

---> X sparse stations <---
Num -> 120000
Mean -> 4175000.00000
RMS -> 8660.24257
Min -> 4160050.00000
Max -> 4189950.00000

---> Y sparse stations <---
Num -> 120000
Mean -> 500000.00000
RMS -> 11547.01741
Min -> 480050.00000
Max -> 519950.00000

---> Z sparse stations <---
Num -> 120000
Mean -> 845.82189
RMS -> 624.46798
Min -> 0.00000
Max -> 3293.00000

-> Sparse station Heights - Working for 1.0 seconds

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... working : REMOVE
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WAIT....
Initialization for TC matrices

---> TC Initialization <---
X start -> 50.000
X end -> 450.000
Y start -> 50.000
Y end -> 550.000
X num -> 400
Y num -> 500
Max radius -> 70922.63390

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... working : REMOVE
.....

WAIT....
Compute E0

---> E0 estimate <---
E0 mean -> 100.00000
E0 def -> 150.00000
E0 int -> 1

---> E0 Estimate <---
Num -> 120000
Mean -> 100.00000
RMS -> 0.00000
Min -> 100.00000
Max -> 100.00000

-> E0 Estimate - Working for 0.6 seconds

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... working : REMOVE
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WAIT....
External integrals on actual DTM: initialization for FFT matrices

---> Outer Initialization <---
Outer Init, call, -> 1

---> FFT parameter <---
Inner Radius -> 150.000
External Radius -> 70922.634
Kernel size -> 709
Zero padding -> 354
FFT X start -> 354
FFT X end -> 854
FFT Y start -> 354
FFT Y end -> 954

FFT X num -> 1208
FFT y num -> 1308

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... working : REMOVE
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WAIT....
KgGamma3o: kernel padding

KERNEL Padding: call num.-> 1

Computing KERNEL FFT

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... working : REMOVE
.....

WAIT....
KgGamma3o: integral estimate

Computing KgGamma3o, power: 0
-> DTM FFT
-> Convolved Kernel-DTM inverse FFT

Computing KgGamma3o, power: 1
-> DTM FFT
-> Convolved Kernel-DTM inverse FFT

Computing KgGamma3o, power: 2
-> DTM FFT
-> Convolved Kernel-DTM inverse FFT

---> KgGamma3o External step1 estimates <---
Num -> 120000
Mean -> -7.77764
RMS -> 8.13562
Min -> -80.28540
Max -> -0.80296

-> First Component - Working for 19.6 seconds

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... working : REMOVE
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WAIT....
KgGamma4o: X component, kernel padding

KERNEL Padding: call num.-> 2

Computing KERNEL FFT

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... working : REMOVE
.....

WAIT....
KgGamma4o: X component

Computing KgGamma4o, Component 1, Power: 0
-> DTM FFT
-> Convolved KERNEL-DTM Inverse FFT

Computing KgGamma4o, Component 1, Power: 1
-> DTM FFT
-> Convolved KERNEL-DTM Inverse FFT

Computing KgGamma4o, Component 1, Power: 2
-> DTM FFT
-> Convolved KERNEL-DTM Inverse FFT

Computing KgGamma4o, Component 1, Power: 3
-> DTM FFT
-> Convolved KERNEL-DTM Inverse FFT

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... working : REMOVE
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WAIT....
KgGamma4o: Y component, kernel padding

KERNEL Padding: call num.-> 3

Computing KERNEL FFT

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... working : REMOVE
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WAIT....
KgGamma4o: Y component

Computing KgGamma4o, Component 2, Power: 0
-> DTM FFT
-> Convolved KERNEL-DTM Inverse FFT

Computing KgGamma4o, Component 2, Power: 1
-> DTM FFT
-> Convolved KERNEL-DTM Inverse FFT

Computing KgGamma4o, Component 2, Power: 2
-> DTM FFT
-> Convolved KERNEL-DTM Inverse FFT

Computing KgGamma4o, Component 2, Power: 3
-> DTM FFT
-> Convolved KERNEL-DTM Inverse FFT

---> KgGamma4o External step1 estimates <---

Num -> 120000
Mean -> 0.11772
RMS -> 0.27808
Min -> 0.00231
Max -> 3.93506

-> Second Component - Working for 49.9 seconds

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... working : REMOVE
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WAIT....
Closing FFT matrices

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... working : REMOVE
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WAIT....
Inner Terms estimate

---> E0 estimate <---
Real E0 -> 150.00000
Integer E0 -> 1.000
Inner X num -> 45
Inner Y num -> 45

Inner, Point 0
Inner, Point 1000
Inner, Point 2000
Inner, Point 3000
Inner, Point 4000
Inner, Point 5000
Inner, Point 6000
Inner, Point 7000
Inner, Point 8000
Inner, Point 9000
Inner, Point 10000
Inner, Point 11000
Inner, Point 12000
Inner, Point 13000
Inner, Point 14000
Inner, Point 15000
Inner, Point 16000
Inner, Point 17000
Inner, Point 18000

Inner, Point 19000
Inner, Point 20000
Inner, Point 21000
Inner, Point 22000
Inner, Point 23000
Inner, Point 24000
Inner, Point 25000
Inner, Point 26000
Inner, Point 27000
Inner, Point 28000
Inner, Point 29000
Inner, Point 30000
Inner, Point 31000
Inner, Point 32000
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Inner, Point 38000
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Inner, Point 40000
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Inner, Point 48000
Inner, Point 49000
Inner, Point 50000
Inner, Point 51000
Inner, Point 52000
Inner, Point 53000
Inner, Point 54000
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Inner, Point 57000
Inner, Point 58000
Inner, Point 59000
Inner, Point 60000
Inner, Point 61000
Inner, Point 62000
Inner, Point 63000
Inner, Point 64000
Inner, Point 65000
Inner, Point 66000
Inner, Point 67000
Inner, Point 68000
Inner, Point 69000
Inner, Point 70000
Inner, Point 71000
Inner, Point 72000
Inner, Point 73000
Inner, Point 74000
Inner, Point 75000

Inner, Point 76000
Inner, Point 77000
Inner, Point 78000
Inner, Point 79000
Inner, Point 80000
Inner, Point 81000
Inner, Point 82000
Inner, Point 83000
Inner, Point 84000
Inner, Point 85000
Inner, Point 86000
Inner, Point 87000
Inner, Point 88000
Inner, Point 89000
Inner, Point 90000
Inner, Point 91000
Inner, Point 92000
Inner, Point 93000
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Inner, Point 101000
Inner, Point 102000
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Inner, Point 108000
Inner, Point 109000
Inner, Point 110000
Inner, Point 111000
Inner, Point 112000
Inner, Point 113000
Inner, Point 114000
Inner, Point 115000
Inner, Point 116000
Inner, Point 117000
Inner, Point 118000
Inner, Point 119000

---> -Kg(gamma3-gamma4)i <---

Num -> 120000
Mean -> -0.13293
RMS -> 0.19259
Min -> -2.48660
Max -> -0.00000

-> Inner Estimate - Working for 2 minutes, 49 seconds

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WAIT....
Quadratic Terms estimate

---> Kg(gamma1-gamma2) <---
Num -> 120000
Mean -> -0.87171
RMS -> 1.18936
Min -> -8.54512
Max -> -0.00000

-> Quad Estimate - Working for 0.6 seconds

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WAIT....
Final result

---> Final TC estimate <---
Num -> 120000
Mean -> 85.98005
RMS -> 61.94244
Min -> -3.09577
Max -> 285.33975

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Stop Working, Thank You

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->Total Time - 0 hour, 4 minutes, 1 second

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