I did a skitour in the Allgäuer Alps:

Starting point and ending point: N 47°25’18.605‘‘ E 010° 24’44.291‘
Return point: N 47°23‘5.615‘‘ E 010° 22‘946‘‘

The tour leads more or less always upwards (a guessed up and down during the route: 20 m)

Altitude datas from different sources:

 Start Returnpoint Change

Topografic map (DAV 1:25.000): 1.060m 2.259 1.199
Dynamic Height (Cursorpos.): 1.061m 2.231 1.170
Openandromaps: 1.100m 2.260 1.160

Statistic part of LOCUS: min: 1.053 max: 2.240 1.187
 **Up: 1.768
 Down: - 1.651**

**The recorded horizontal route is a very good approximation to the reality**. Along the routes are no significant canyons or ridges that could spoil the altitude messurements.

2 Questions:

1. Why do I have a difference of **117 m** between up and down (endpoint is exactly the starting point) (down route is only slightly different than up, and much faster (downhill skiing)?
2. What causes the big diffences between Statistic datas and the pure calculated changes to all alternativ datasets (e.g. to topografic map: +569m or more than 47 %)?

I use: LOCUS pro
 Altitude Mgr.: Automatic
 SRTM files: LIDAR 1‘‘ (witch are recomended as more accurate than SRTM)
 SRTM-Files: Optimize GPS Altitude
 Light altitude filter
 GPS auto off: 60 sec; 20 m; 60 sec.

 No barometric sensor available in the smart phone (MI MAX from XIAOMI)