Lidar Forestry Applications in the Upper Trinity Watershed

Site

Tree Canopy

- CHM
- TTOPS
- Crowns

Tree Canopy - CHM

- Shown here over slope

Tree Canopy - CHM

- Same image
- Larger scale

Tree Canopy - Normalized Height

Tree Canopy - ZQ95

**Tree Canopy - other
ZQ95**

Canopy -KNN

Topography

- Slope
- Shaded relief
- Openness
- Red Relief
- High Pass Filter
- Geomorphons

Topography - Slope

- Slope of DEM

Topography - Shaded relief

- A Classic visualization

Topography - Openness

- Integration of relative horizontal elevation in 16 directions within 15 pixel search window on DEM

- i.e., Is there stuff around this pixel?

Topography - Red Relief

- Nice for visualization
- Based on slope and openness

Topography - High Pass Filter

- Sharpens local features

- Here with 7.5m focal mean and 0.5 m pixels

Topography - High Pass FIlter

- Sharpens local features

- Here with 7.5m focal mean and 0.5 m pixels...

- leaving out vertical changes < |0.2 m|

Topography - Another Compound visualization

- Nice visualization based on openness, slope and high pass filter

Topography - Geomorphons

- Here showing high frequency spatial data

- i.e. small features

Topography - Geomorphons

- Here showing intermediate frequency spatial data

- i.e., medium sized features