Cosmic Ray studies using MuonGun

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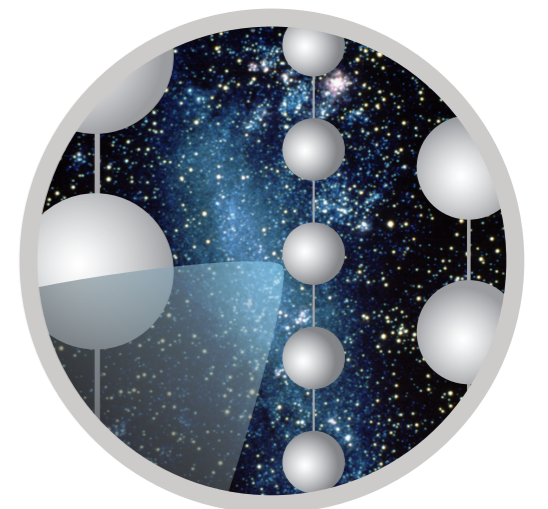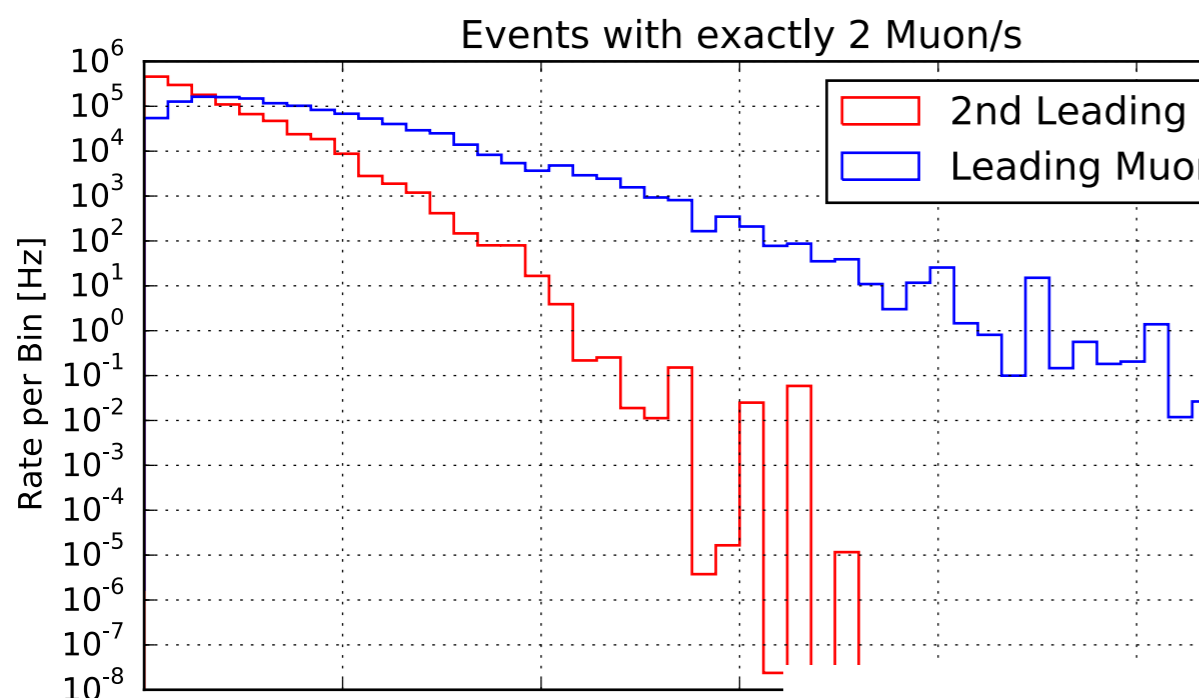
Me

Hi! My name is Manuel Silva

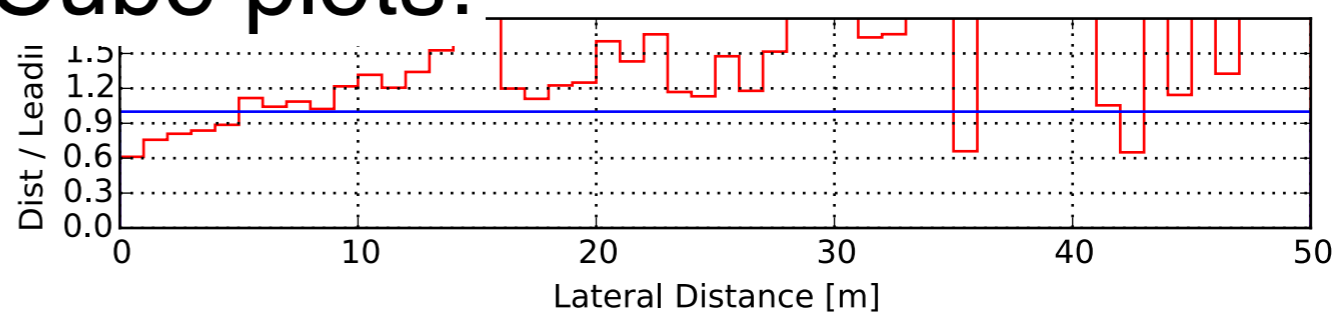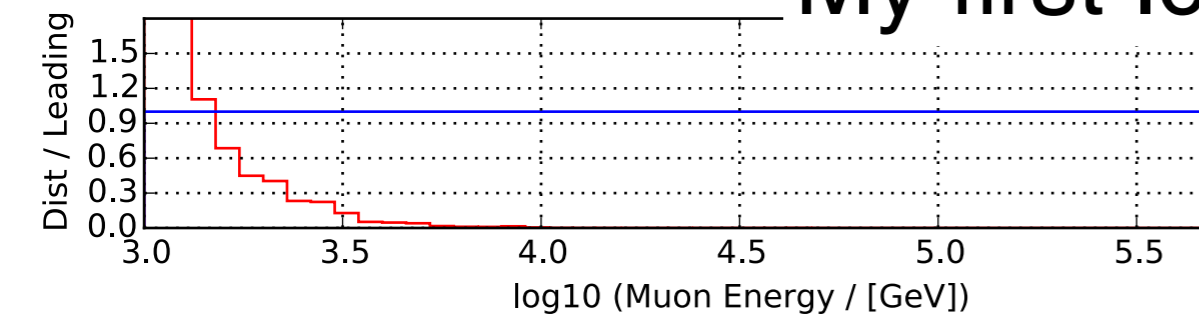2nd year grad student at UW Madison

Just joined ice cube ~1 month ago

Still a n00b, but eager to learn and do some science!

MuonGun

- Corsika simulates the entire athmos. shower including events that don't even reach IceCube (very slow)

- MuonGun is a parametrization of the muons from these showers that actually make it to IceCube (very fast)
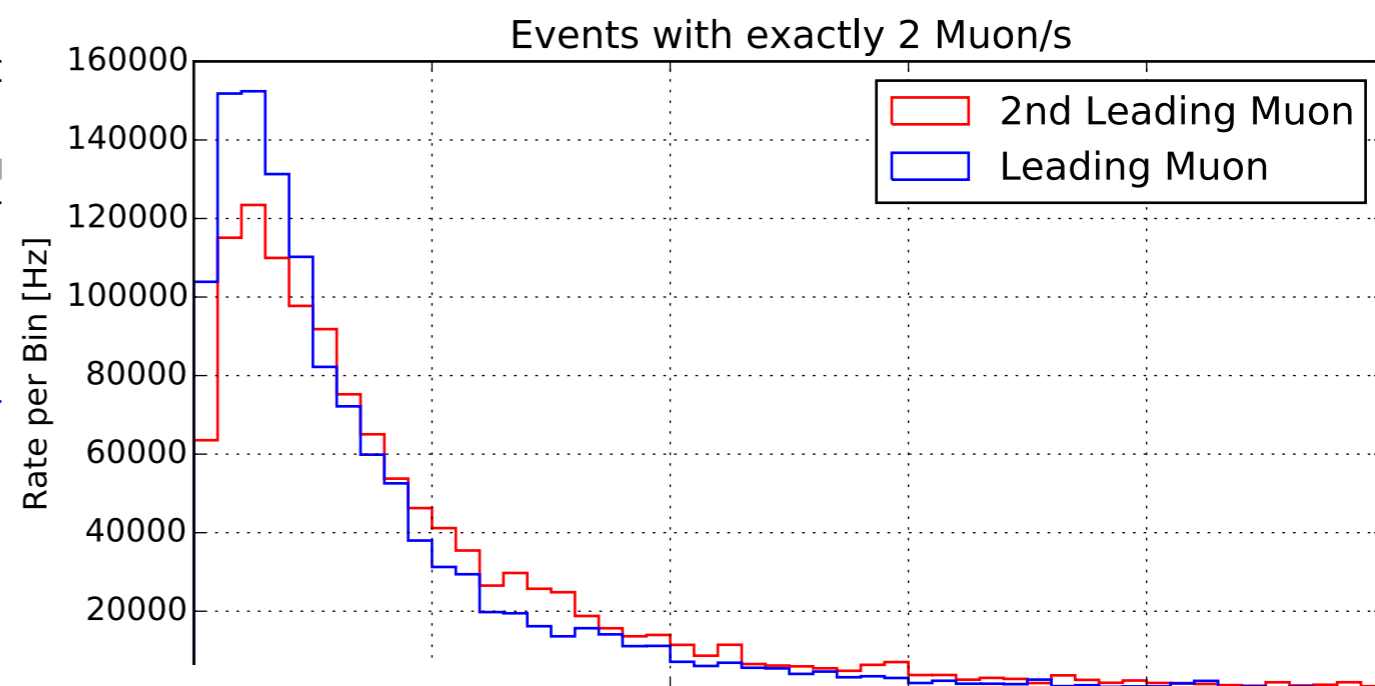
My first IceCube plots!

Tasks

1. Validate that MuonGun can properly simulate events for showers with multiple numbers of muons

   A. Easiest way is to compare to Corsika with similar atmospheric shower parameters

2. Investigate the HESE veto efficiency for events with multiple muons