Please provide the following information to get access to the SDN testbed at Caltech and send it to hep-wheel@caltech.edu.

1. Project description:
   - GP4L (Global P4 Lab) is a global L3 overlay network composed of 25 P4 programmable switches from the GNA-G AutoGOLE / SENSE Persistent Multi-Resource Testbed and the GÉANT P4 Lab
2. Project funding:
   - GP4L is a non-funded partnership between AutoGOLE / SENSE WG and the GÉANT P4 lab, led by Marcos Schwarz from RNP and Frédéric Loui from RENATER/GÉANT. In 2023 GP4L is expected to be an official task of the GÉANT GN5 project.
3. Project PIs:
   - Marcos Schwarz, Frédéric Loui
4. Project timeline:
   - Project started 2021 as a GNA-G initiative with no direct funding
   - It expects to use Caltech as one of the resources until at least SC23 (and SC24?)
5. Project Goals and Success metrics:
   - Provide multiple Tofino node to GP4L at Caltech
   - Provide DPDK node to GP4L at Caltech
   - Also, as a short term goal, to validate FreeRtr on a Tofino2 hardware
6. Project Requirements in terms of Hardware:
   - We use FreeRtr as a Network OS on Tofino and DPDK devices, we request for a Tofino device to be part of GP4L and SC23 demonstration.
   - We also request temporary access to a Tofino2 device to validate freeRtr support to it, based on fixes being implemented by Intel. And to validade fast swapping freeRtr and SONiC using containers.
   - For traffic generation we request a pair of containers with physical access to the network (desired up to 100G capacity), to be able to generate simple traffic for dataplane validation inside Caltech and to other GP4L sites.
7. Project Requirements in terms of Software, tools, and System tuning:
   - DHCP and NAT for the FreeRtr switches, Internet access (NAT) on containers
   - Wireguard tunnel from the GP4L device to GEANT NMaaS for centralized management and monitoring
8. Project Requirements in terms of Networking and Network connections - LAN/WAN:
   - We need a VLAN from the traffic generator to the Tofino1 switch. And a VLAN between the P4 switch and the neighboring GP4L sites.
9. In case you do need sudo/root access - please explain why
   - We need root access on the Tofino switches, and a container with privileges to use the physical network and install packages
10. In case you do need to have 'configure' or console access to switches - please explain why:

- ○ We need console access to the provided Tofino switches to be able to restore/reinstall freeRtr or SONiC
11. Which users will need access to SDN Testbed (Whom the account should be created for):
    - ○ Marcos Schwarz and Frédéric Louii