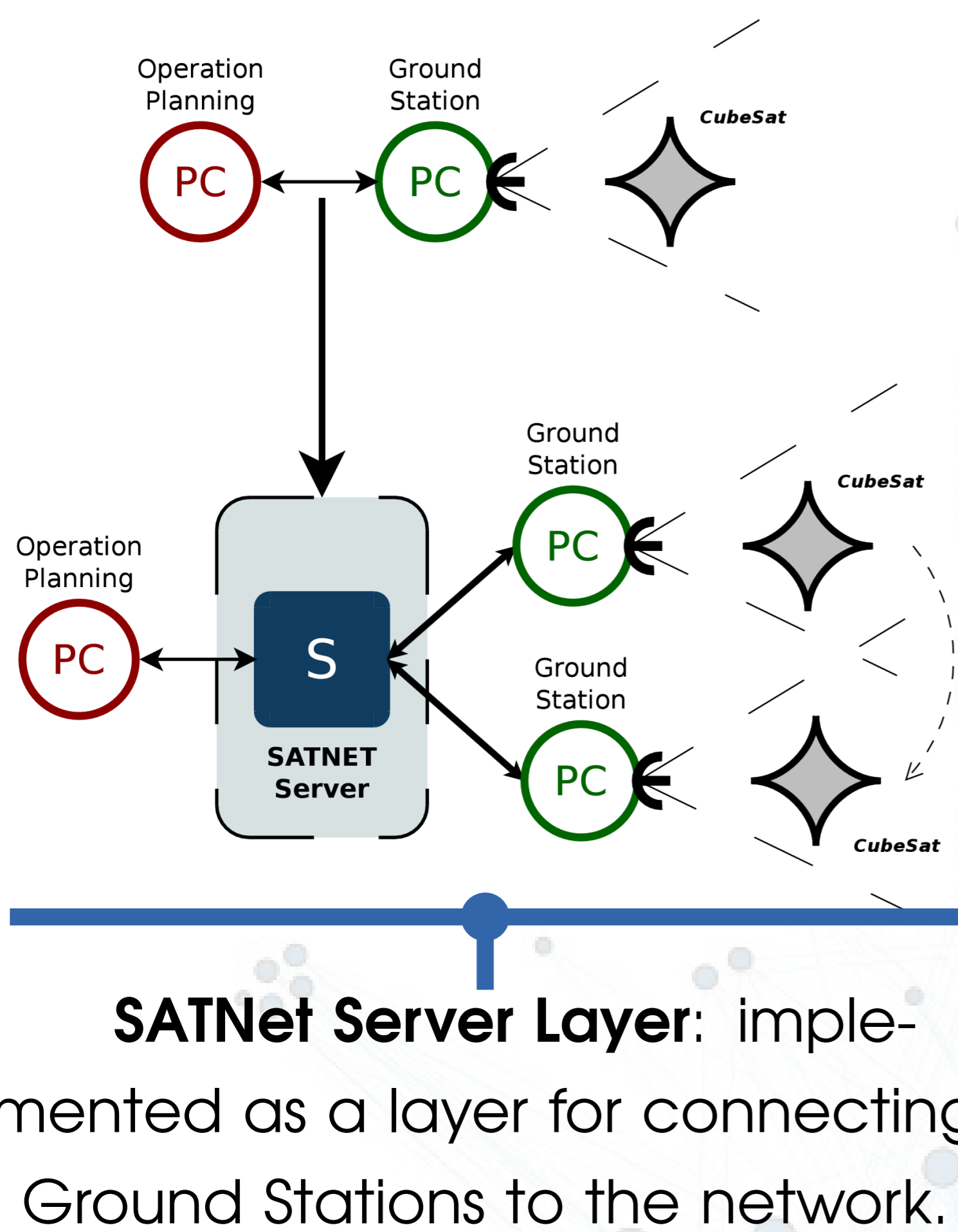# Bi-directional Communications over the SATNet Network

Prof. Fernando Aguado-Agelet[1]
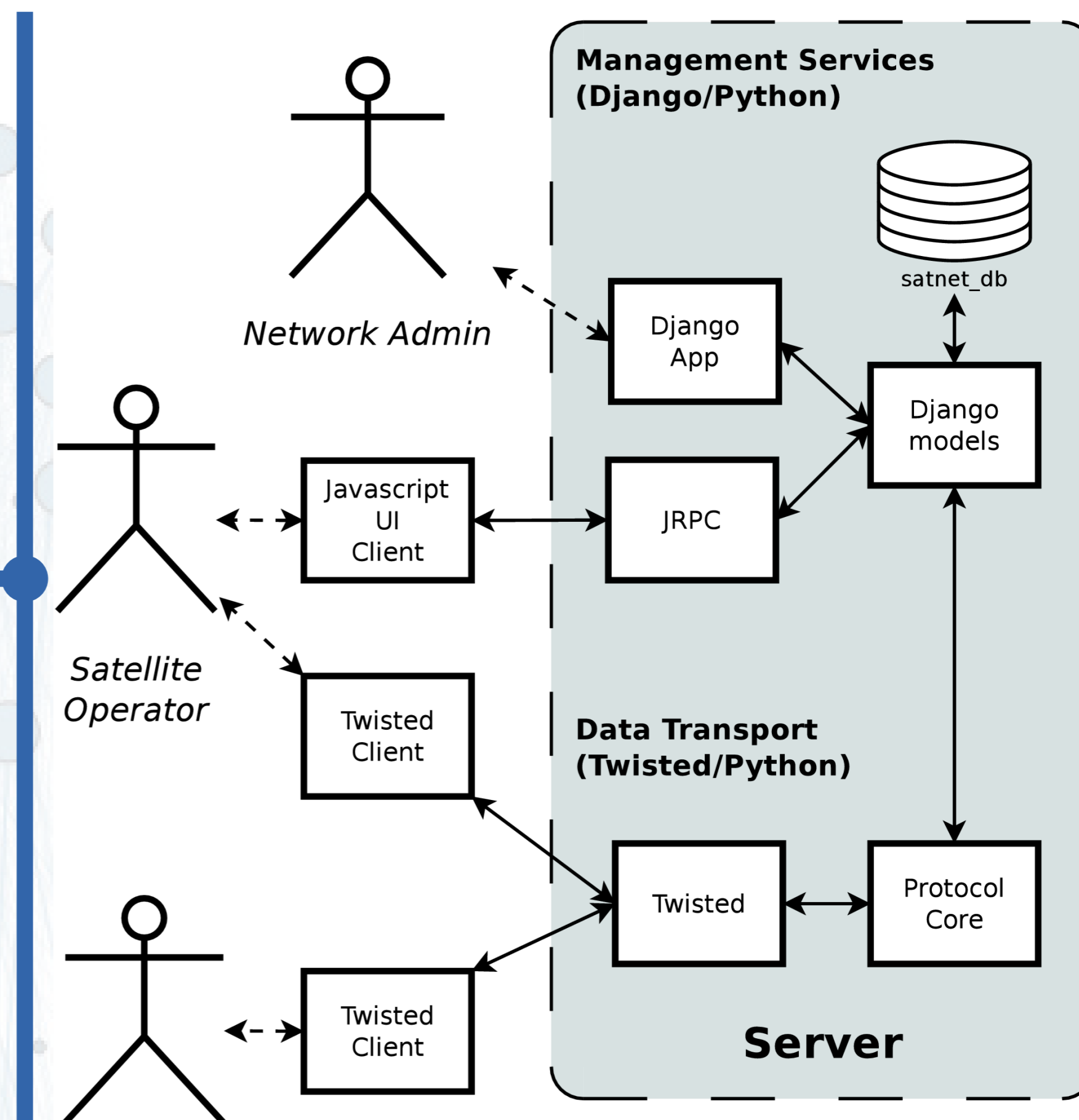
Dr. Ricardo Tubio-Pardavila[2], Prof. Jordi Puig-Suari[2]

Universidade de Vigo (Spain)[1],

California Polytechnic State University (USA)[2]

UNIVERSIDADE DE VIGO

LaTeX + TikZ

SATNet Server Layer: implemented as a layer for connecting Ground Stations to the network.

Server:
- Services (Django)
- Protocol (Twisted)
  - Database (PostgreSQL)

Clients:
- Independent
- HTTPS JSON-RPC access

Community:
- Apache v2
- GitHub Hosted

-	Mercury	GSN	MC3	GENSO	SATNet
Paradigm	Client Server	Client Server	Legacy GCA	Hybrid P2P	Distributed Network
Remote GS	data	data	data	audio	data
Federation	yes	-	yes	-	yes
Scheduling	-	-	Central	Distributed	Hybrid
Security	-	-	Central	-	Distributed
Sources	Source Forge (2003)	-	-	-	GitHub
License	GPLv2	-	-	-	Apache v2

Improvements:
- Network Design
- TC/TM with Messages
- Security (HTTPS)
- Web Registration
- Open Source

Implementation Status:
- LEOP downlink running
- AngularJS client for coordination
- Google Chrome application for data retrieval

JOIN US!:
- github.com/satnet-project