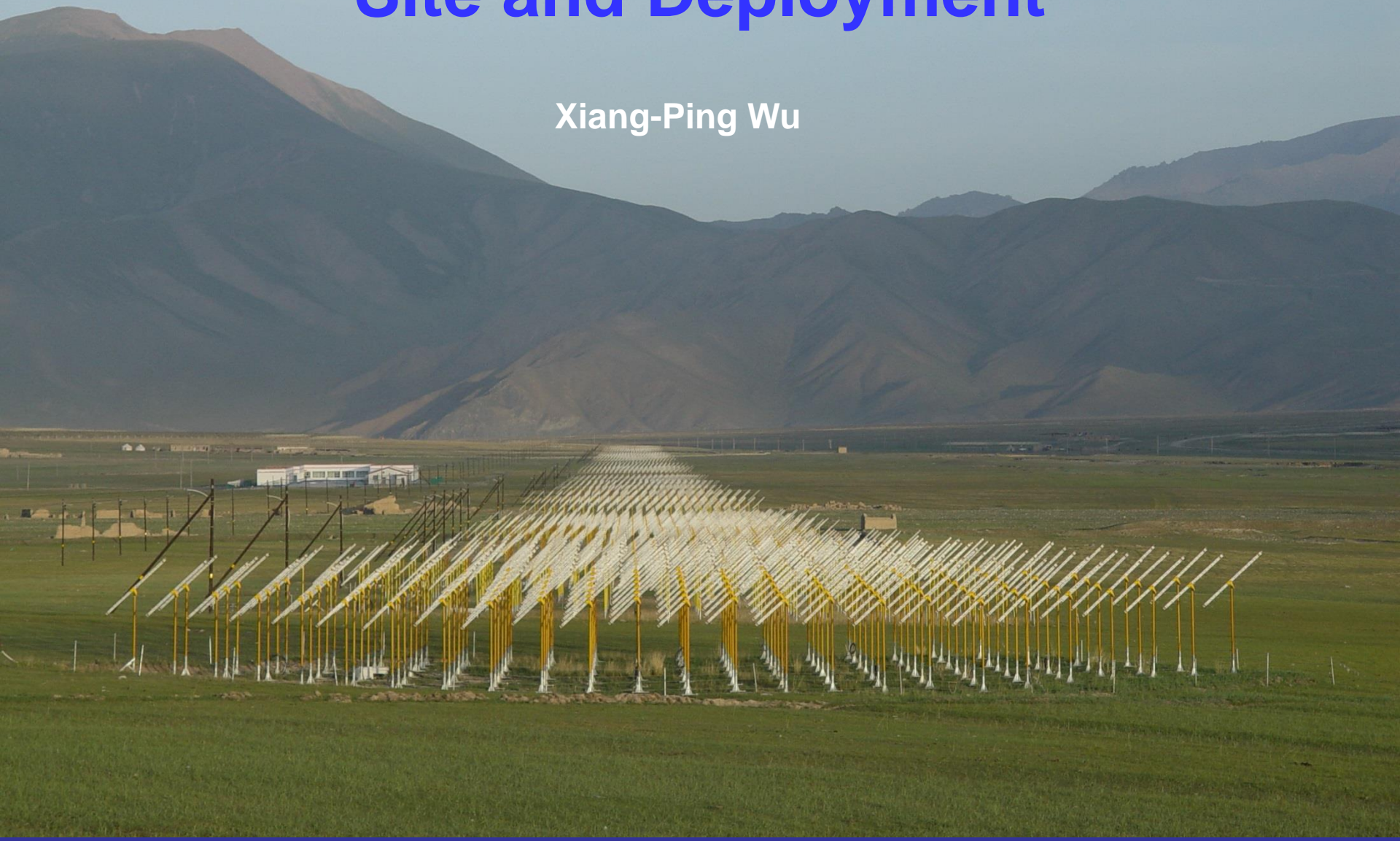


**GRAND:**

# Site and Deployment

Xiang-Ping Wu

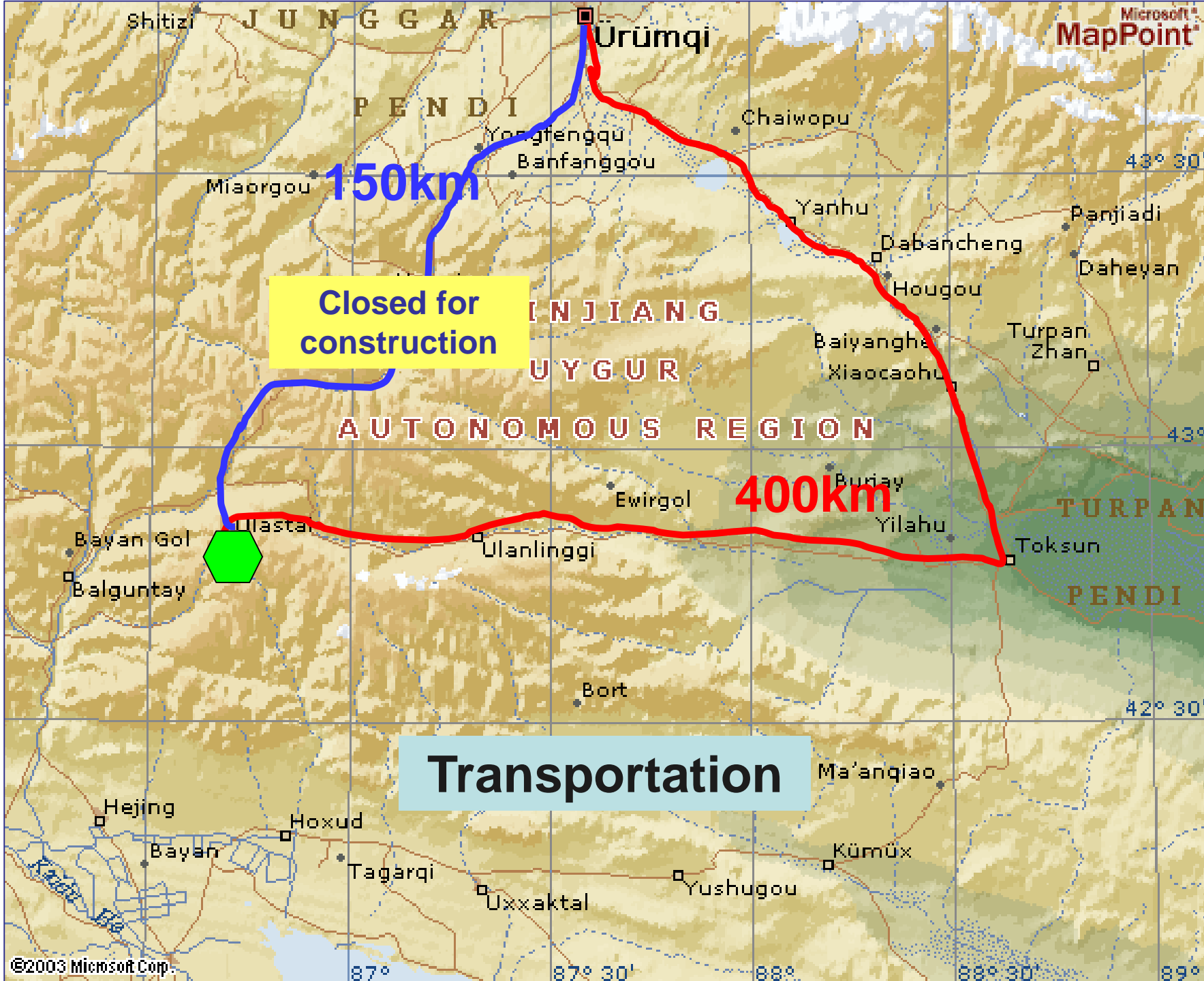


# Where is the site ?



# 21CMA Site





Closed for construction

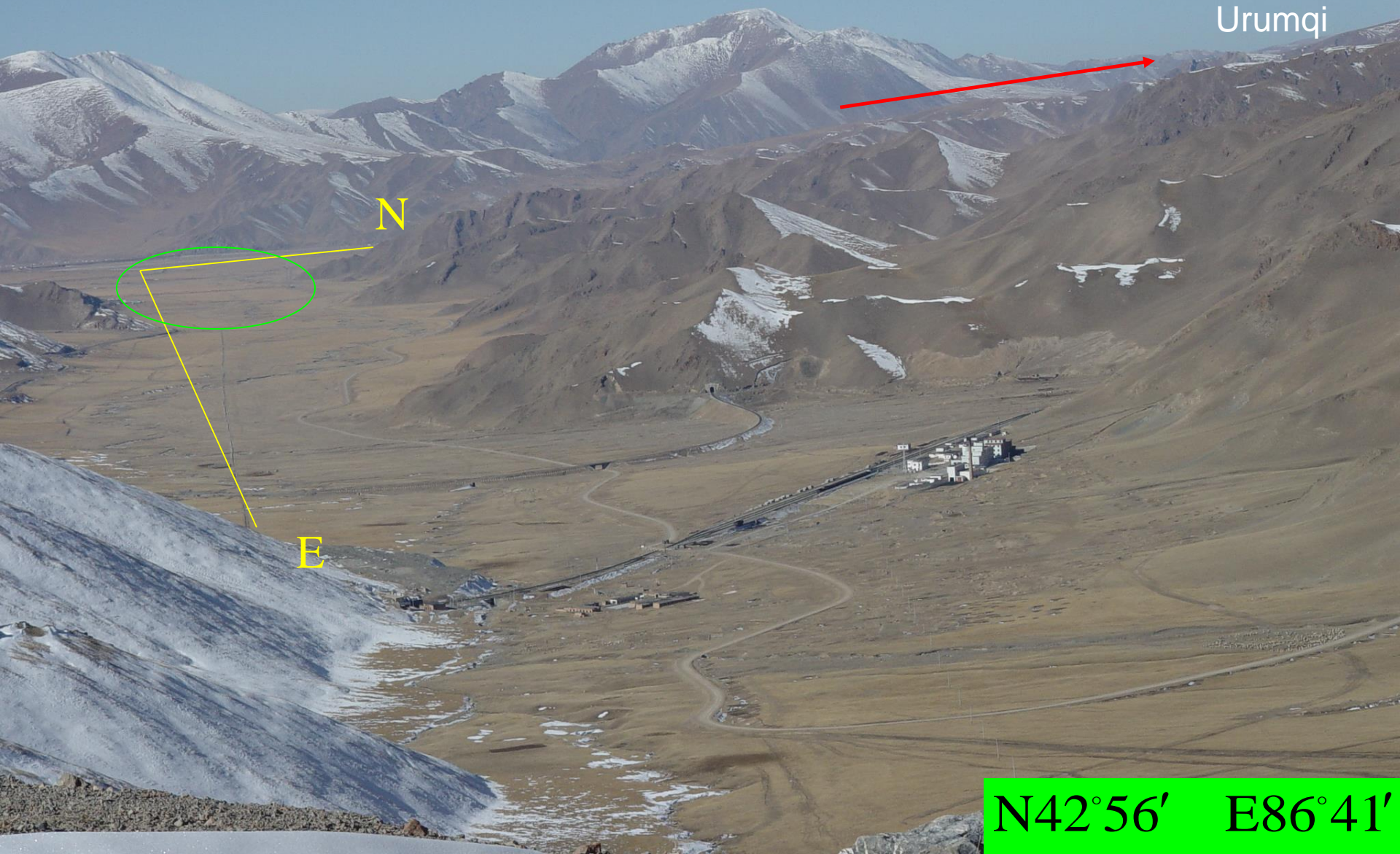
Transportation

150km

400km

# Ulastai Valley: 2700m

Urumqi



N

E

N42°56' E86°41'

**June 2006: construction completed**

**81 pods of 127 antennas -> 10287**

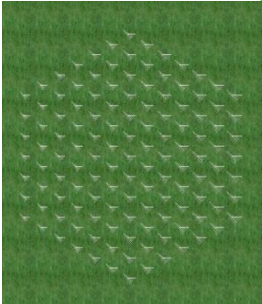
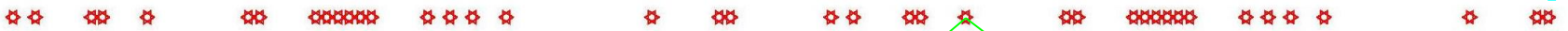
**Physical area: 50544m<sup>2</sup>**



S

N

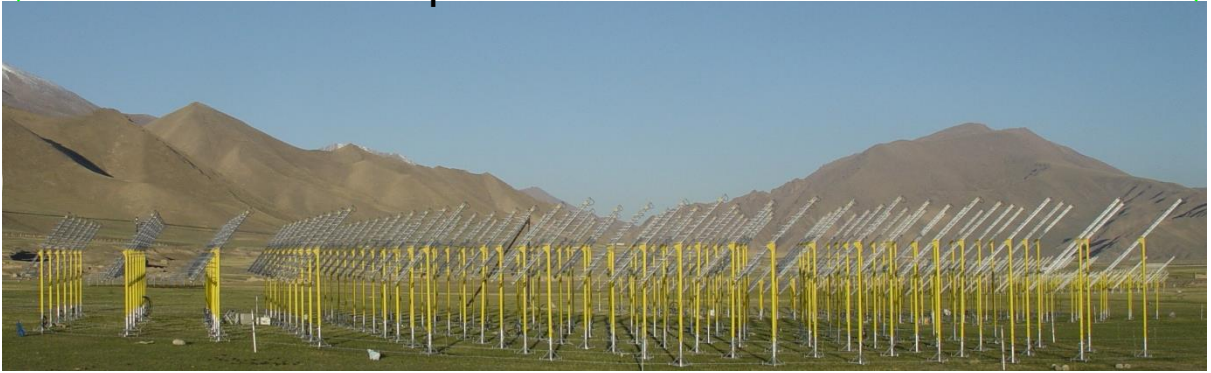
W



1 pod=127 antennas



control room



21CMA Layout

81 pods along two perpendicular arms (6km+4km)

E

Baselines: 3240    Channels: 8192    Correlations: 26,542,080

# Ulastai Observatory





# Funding Situation for TREND/GRAND\_proto

1M Euros over past 8 years

# Funding Situation for 21CMA

10M Euros over past 14 years

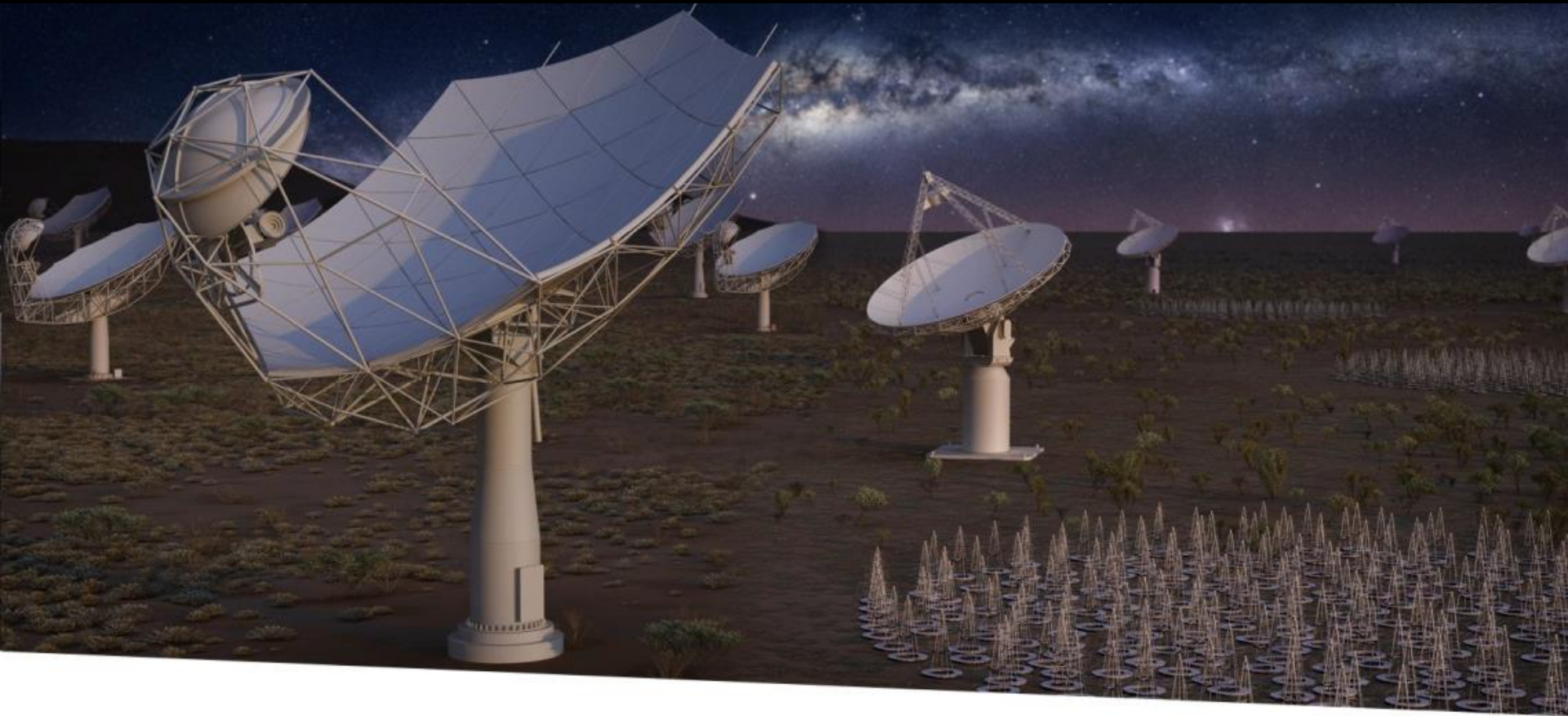
## Current Funding:

**SKA-China + Gravitational Wave Astronomy (CAS)**

2M Euros for next 5 years



# Another Funding Resource for GRANDproto



**SQUARE KILOMETRE ARRAY**

Exploring the Universe with the world's largest radio telescope

# SKA-China Science Working Groups

- 1. Cosmic Dawn and Epoch of Reionization** - Xiang-Ping Wu (NAOC)
- 2. Pulsar Timing and Test of Gravity** - Kejia Lee (Peking U.)
- 3. Pulsar Search** - Na Wang (XAO)
- 4. Neutral Hydrogen and Cosmology** - Xue-Lei Chen (NAOC)
- 5. Cosmic Magnetism** - Jin-Lin Han (NAOC)
- 6. Interstellar Medium** - Wen-Wu Tian (NAOC)
- 7. Transient** - Wen-Fei Yu (SHAO)
- 8. AGNs and Black Holes** - Feng Yuan (SHAO)
- 9. HI Dynamics and Galaxy Evolution** - Ming Zhu (NAOC)
- 10. Cradle of Life** - Yong Zhang (HKU)
- 11. EAS and Neutrinos** - Ke Fang (UM)

# Xinjiang Uighur Autonomous Region

شىنجاڭ ئۇيغۇر ئاپتونوم رايونى

新疆维吾尔自治区  
(Xīnjiāng Wéiwú'ěr Zìzhìqū)

شىنجاڭ ئۇيغۇر ئاپتونوم رايونى

*Shinjang Uyghur Aptonom Rayoni*



Xinjiang is a large central-Asian region within the People's Republic of China comprising numerous minority groups: 45% of its population are Uyghurs, and 40% are Han. Its heavily industrialised capital, Ürümqi, has a population of more than 2.3 million, about 75% of whom are Han, 12.8% are Uyghur, and 10% are from other ethnic groups.

**A local partner is urgently needed to solve the local problem!**



新疆大学  
Xinjiang University

# Welcome to Ulaistai

