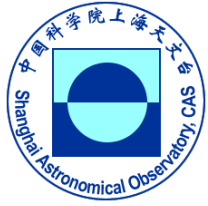




Collaboration with NRAO



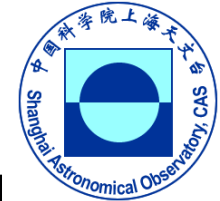
- **Collaboration with NRAO is very important for SHAO:**
- **TianMa (SH65m) project.**
 - **Design of the telescope**
 - **C and Ku band receivers**
 - **DIBAS (for Pulsar and spectral lines observations)**
- **SMVA (SVLBI)**
- **Exchange project**
 - **make both sides know each others. Our young engineers and young astronomers learnt a lot from NRAO.**
- **Further collaboration with your NBT is very attracting to us**





➤ **SKA: 5-10%**

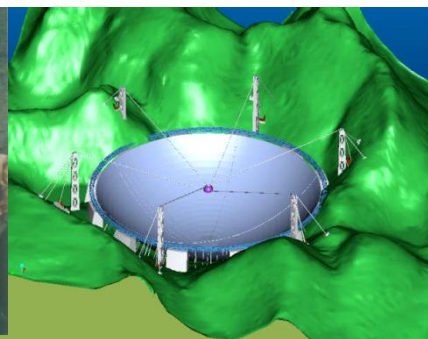
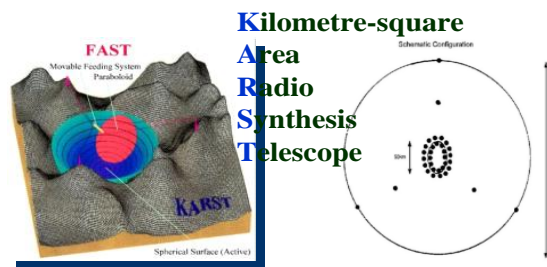




Long March to SKA



- Co-initiator of LT(1993) ⇒ Engineer concept KARST (1994, result in FAST) ⇒ Potential site ⇒ Co-founder of SKA funding board (Apr. 2011) ⇒ Initial member of SKAO (Nov. 2011) ⇒ Technical development (currently)



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Signature

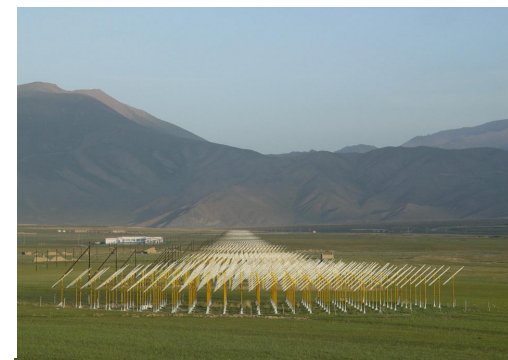
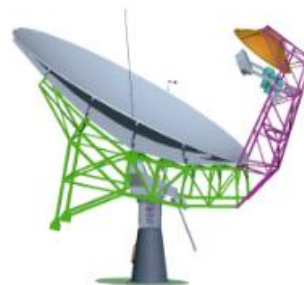
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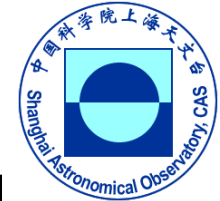
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Current new projects in China

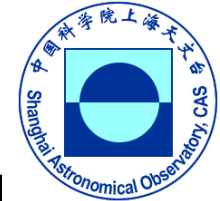


- 21CMA: NAOC, Xiangping Wu

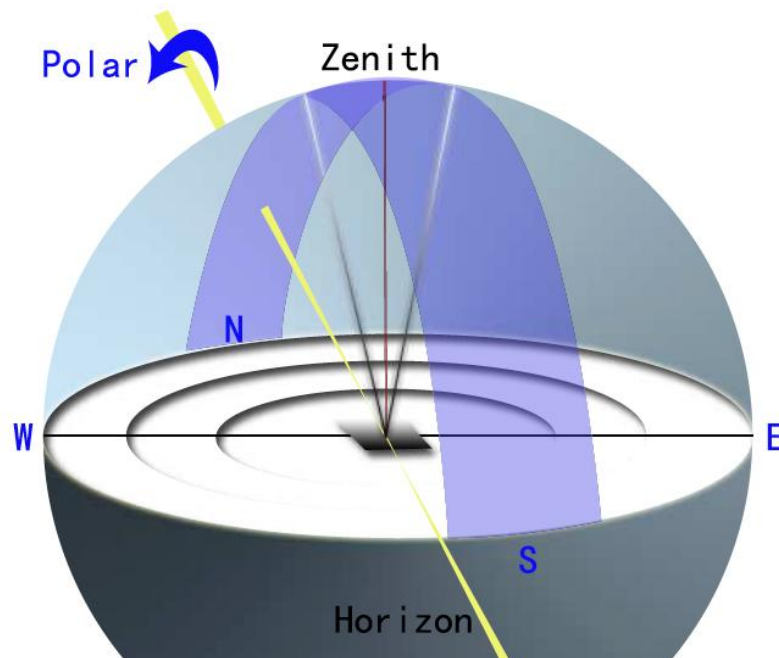
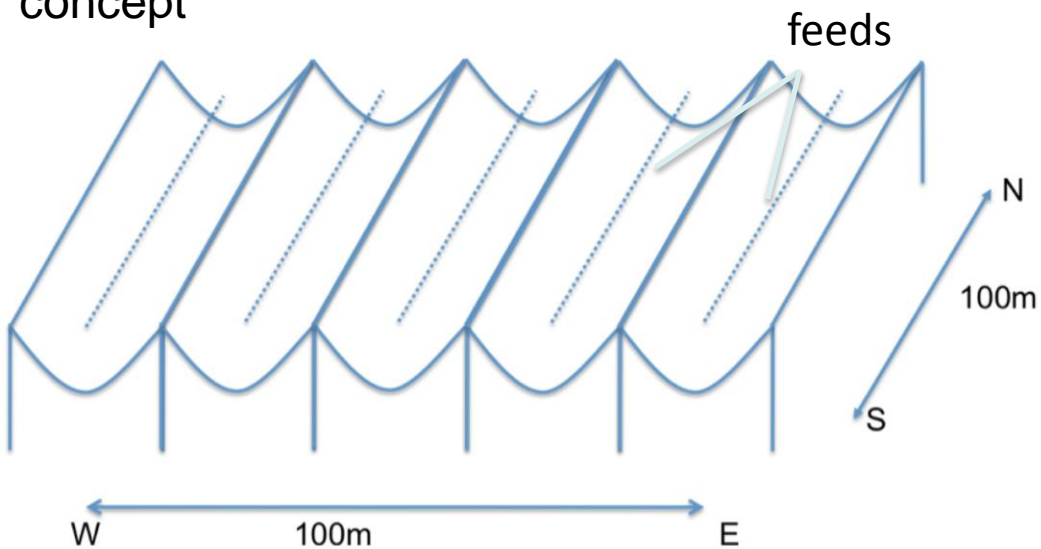




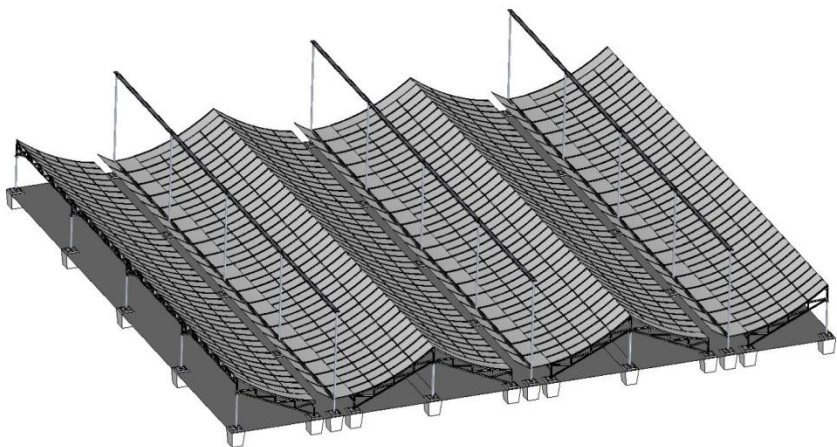
Tianlai(天籟) experiment,



concept



path finder

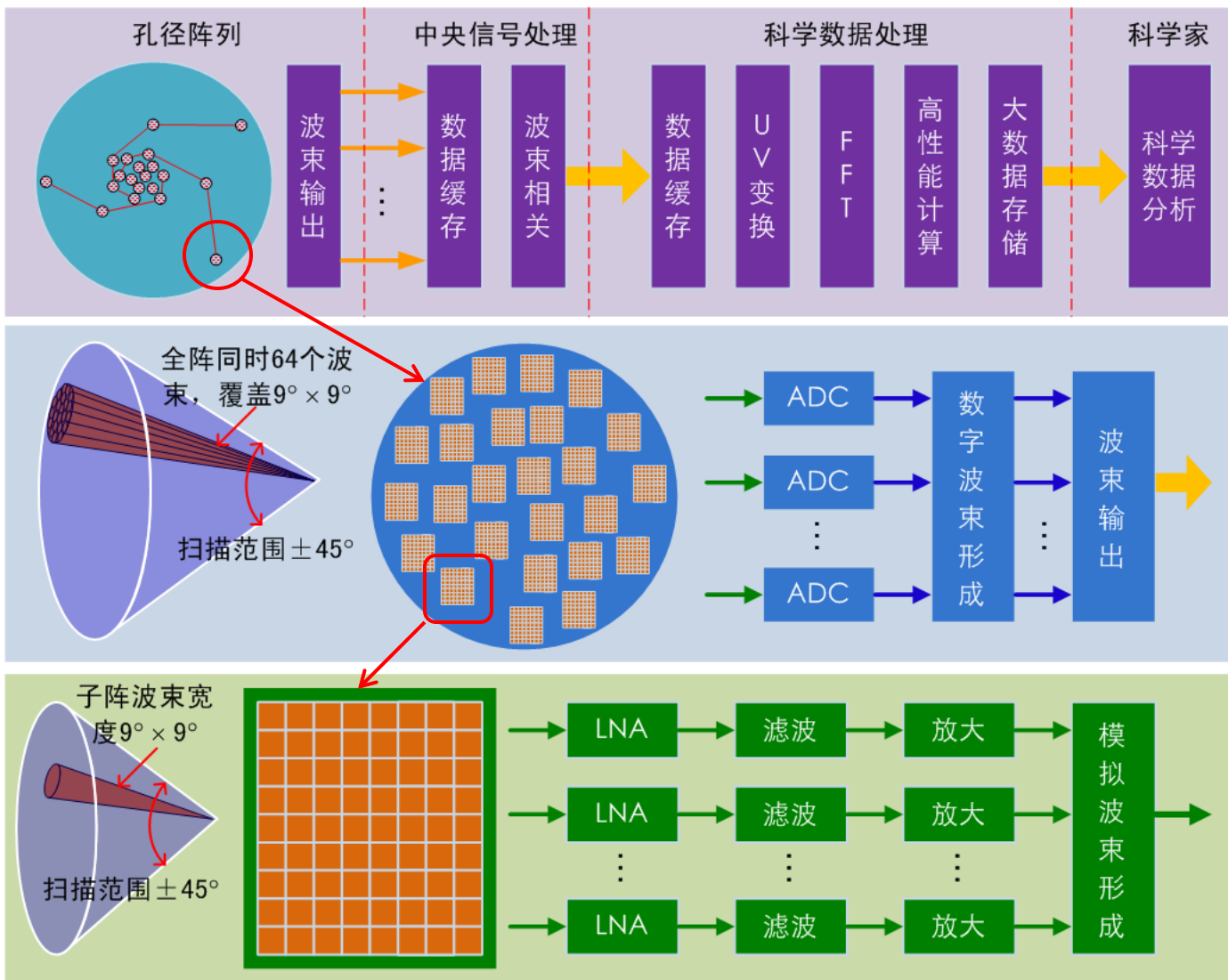
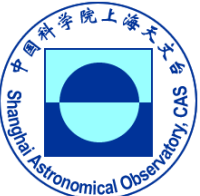


instant field of view

Xue Lei Chen, NAOC



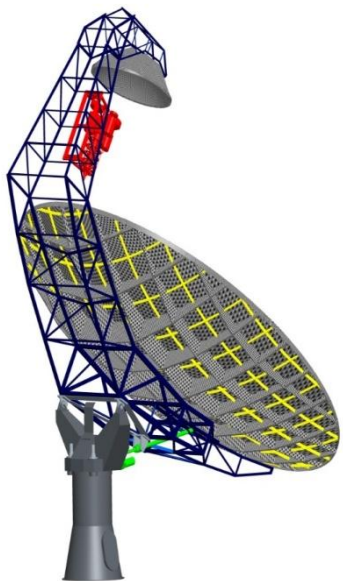
中国SKA孔径阵列—CAA（中频）



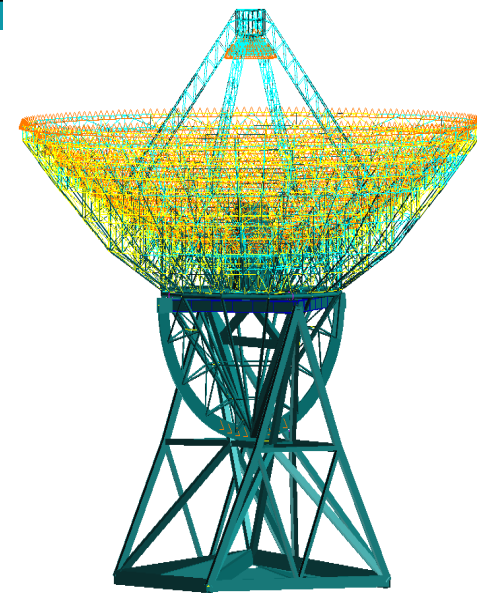
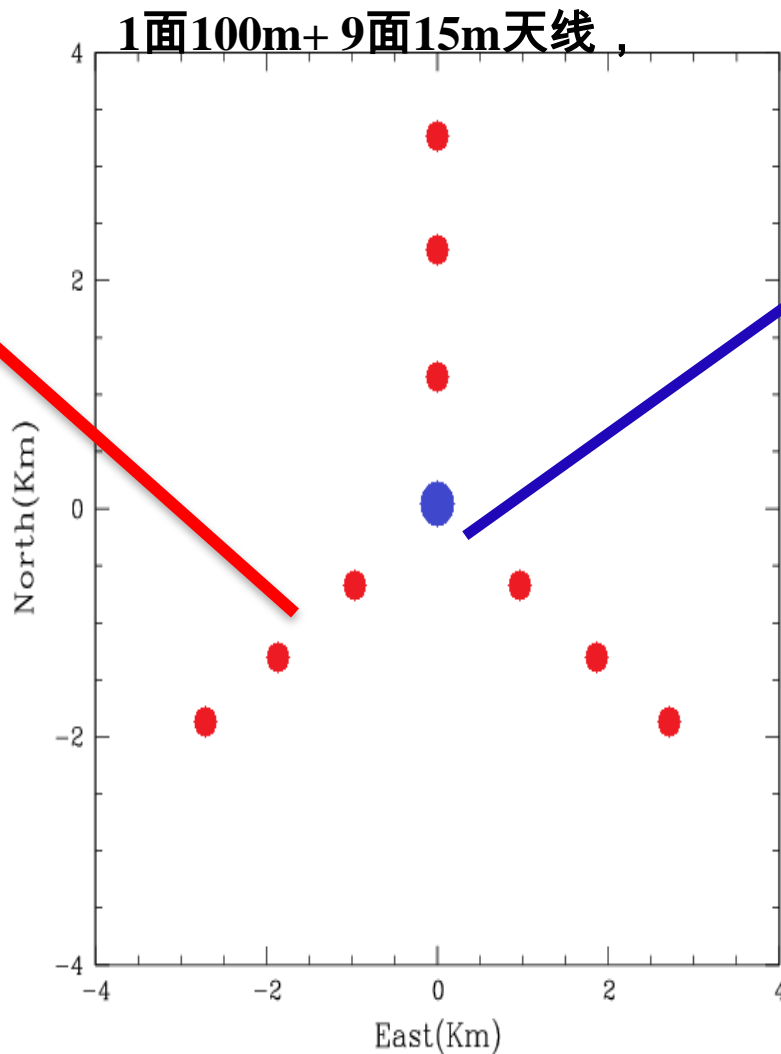
A proposal for the pathfinder of SKA in China



中国SKA原型系统—反射面天线阵

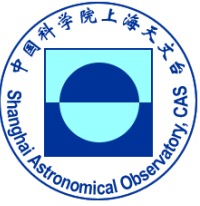


15m 双偏置格里高利天线



100m 格里高利天线

A proposal for the pathfinder of SKA in China



-
- **It is not easy to have a new big project in China independent.**
 - **Joint study group is a good idea at current step**
 - **Northern Hemisphere SKA at High Frequency (at centimeter wavelength)**



-
- **Broad Band,**
 - **Broad FOV,**
 - **New technique,**
 - **Cheap,**
 - **Electric Power or Solar energy**
 - **Easy Data processing**

SKA科学目标及相关重要问题研讨会

2014年4月16-17日





Resources in China



- **National Development and Reform Commission 发改委**
 - ALMOST, FAST, Antarctic Observatory, QTT
- **MOST (Ministry of Science and Technology)**
 - SKA, 21CMA, Tiannai,
- **Ministry of finance**
 - SMVA, Tianma
- **Chinese Academy of CAS**
 - SMVA, Tianma
- **Local government (Shanghai)**
 - Tianma
- **NSFC**
 - THz Lab.
- **???**
 - ChinaART 12X80m at low frequency