

# Work Plan of Digitizing Chinese Photographic Plates

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# Chinese Astronomical Plates

- Since 1902
- Over 30,000
- Objects: asteroids, comets, binaries, variable stars, flare stars, new star, supernova, radio stars, clusters, galaxies and so on.
- Instruments

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Observatory	Instrument	Period
Shanghai	40cm astrograph refractor	1901-1998
	156cm reflecto	1988-1994
Beijing	40cm astrograph refractor	1968-1990
	60/90cm Schmidt +objective prism	1968-1990
Purple Mountain	15cm refractor	1949-1986
	40cm astrograph refractor	1964-1986
	60cm reflector	1954-1965
Yunnan	100cm reflector	1979-1985
	40cm solar spectrograph	1976-1997
Qingdao	32cm refractor	1960-1997
	15cm astrograph (Xi-Sha Island, Halley's Comet)	1986

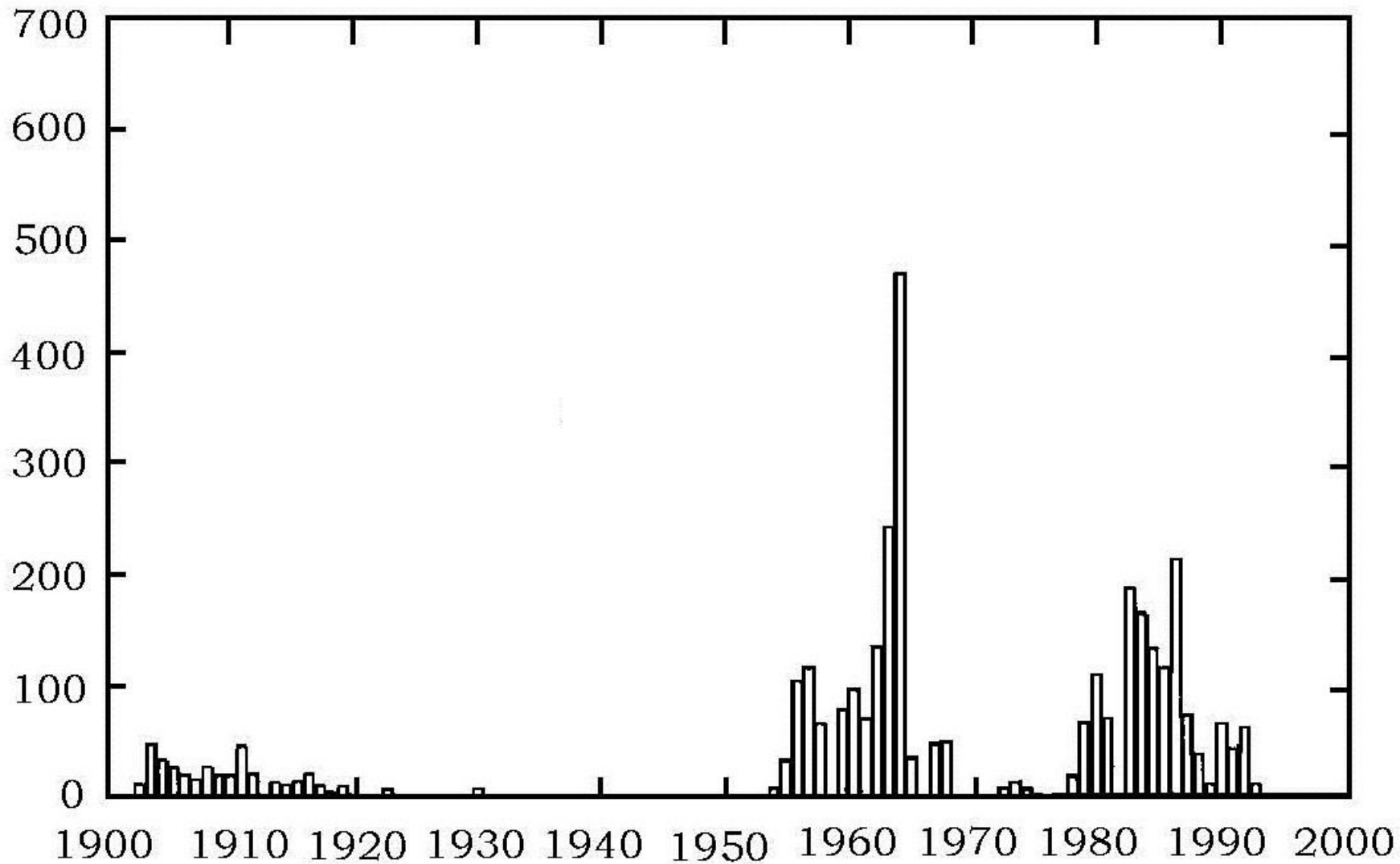
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Observatory	No. of plates
Beijing	~9500
Shanghai	~7000
Purple Mountain	~13200
Yunnan	~800
Qingdao	~1000
Xi-an	~100

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# Number of Plates taken with 40cm astrograph in Sheshan Station



# Plate information in WFPDB format

天文台 代码	望远镜 口径	代码 后缀	原始底 片编号	编号 后缀	赤经 的时	赤经 的分	赤经 的秒	赤纬 符号 (即正 负号)	赤纬 的度	赤纬 的分	赤纬 的秒
IDobs	IDins	IDSuf1	IDno	IDSuf2	RAh	RAm	RA s	DE-	DEd	DEm	DEs
A3	I3	A1	I6	A1	I2	I2	I2	A1	I2	I2	I2
NAOC	40		DA616		00	00	00	+	66	00	00
NAOC	40		DA628		00	00	00	+	60	00	00
NAOC	40		DA627		00	00	00	+	60	00	00
NAOC	40		DA619		00	00	00	+	54	00	00
NAOC	40		DA745		00	00	00	+	48	00	00
NAOC	40		DA600		00	00	00	+	48	00	00
NAOC	40		DA22		00	06	30	+	28	53	54

观测日 期的年	观测日 期的月	观测日 期的日	观测日 期的时	观测日 期的分	观测日 期的秒	观测日 期出错 代码	目标或天 区名称
DATEy	DATEm	DATEd	UTh	UTm	UTs	TCOD	OBJNAM
I4	I2	I2	I2	I2	I2	A1	A20

1965 01 06 23 49 0 1965b

1965 01 12 4 12 0 **1965b**

1984 11 22 3 13 0  $\epsilon$  Gem

1965 01 08 0 58 0  **$\epsilon$ Gem**

1965 01 09 2 31 0  **$\epsilon$ Gem**

目标分 类代码	观测方 法 代码	露光 次数	露光时 间 (单位: 分钟)	底片类 型	滤光片 型号	光谱波 段	底片大 小, X方向	底片大 小, Y方向
OBJTYP	METHOD	MULTEX	EXP	EMULS	FILT	SPEC	DIMx	DIMy
A2	I2	I2	F6.1	A11	A7	A2	I2	I2
	1	1		Agfa	spectrum		9	12
	1	1		Agfa	<b>spectrum</b>		9	12
	1	1	0.5	UV	Agfa		9	12
	1	1	0.5	UV	Agfa		9	12
	1	1	15.0	103a0			16	16



Q10

照片號碼	10	4.5
照片中心	$\alpha$	11 h 56 m S
的赤經緯	8	+0° 26' "
拍照時間	1902年5月2日	時分秒
露光長短	12 18" 15" 5"	
拍照對象		
拍照者		

備註 玻璃面(用玻璃片(中間缺) 20.6.10) (2/3)

星像尚好. 底片內星玻璃窗+++





Cygnus

Taken on  
May 16,  
1902

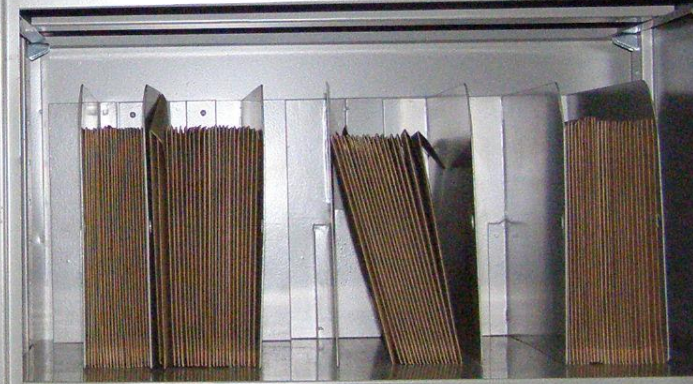














# Work Plan

Project period: 2012.6-2017.6

- Digitizing Machine(2012.6-2013.12)
  - Astrometry
  - Photometry
  - Speed
  - Budget

# Work Plan

2) Cleaning(2014.1-2016.12)

3) Digitizing(2014.1-2016.12)

# Work Plan

4) Image Reduction(2014.1-2016.12)  
(software, astrometry, photometry)

5) Database(2015.1-2017.6)

→ Virtual Observatory

→ Easy to search and dig for astronomers.



- We would like to cooperate with Observatories/colleagues who have experience on plate digitization (digitizing machine, cleaning, image reduction, database).

**Thanks!**