

# プロポーザル提出までの概要

観測に必要な露出時間・S/N・深さを定量的に見積もる。

WFI ETC

<https://roman.etc.stsci.edu/>  
(使い方はJWST ETCとほとんど同じ)

ETCの結果を反映し、実行可能な観測プログラムを構築。

Roman APT

Supported Version: 2025.8

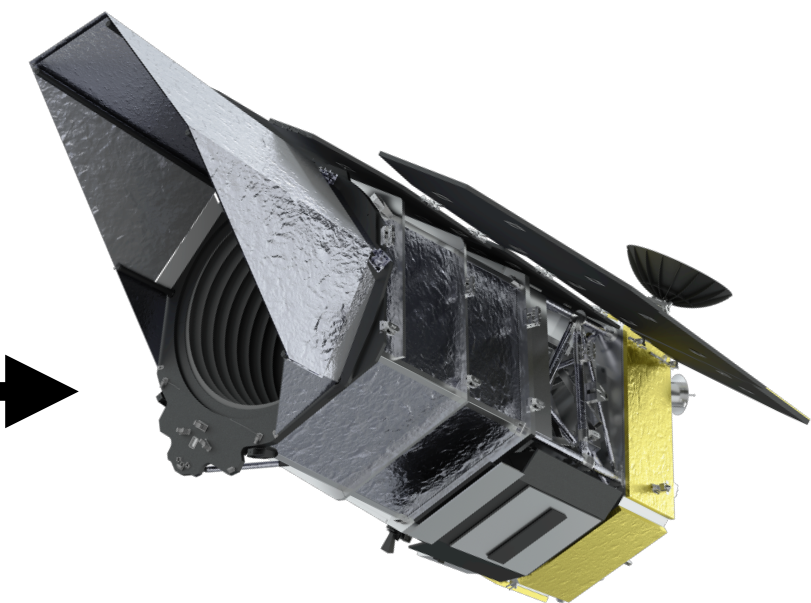
[https://www.stsci.edu/scientific-community/  
software/astronomers-proposal-tool-apt/](https://www.stsci.edu/scientific-community/software/astronomers-proposal-tool-apt/)

RTPS

RTPSに必要情報を記入

<https://rtps-roman.ipac.caltech.edu/>

提出



✓ MyST でログイン、匿名利用、または Quick Start モードが利用可能。

ワークブックは自動保存

→ 匿名利用でも途中で MyST ログインすれば引き継ぎ可能。

✓ 推奨ブラウザ：Chrome / Firefox / Edge / Safari

✓ 性能モデルは、熱真空試験データと較正に基づく現時点での推定値

✓ Known Issues

Dither観測をサポートしていない。→ nexp をディザ数として近似

The inter-pixel capacitance (IPC)効果が考慮されていない

ノイズ計算が想定パイプラインと不一致

など

User Guide : <https://roman-docs.stsci.edu/raug>

Roman -> 大規模サーベイを効率的に実行するために設計された望遠鏡

APT -> 大規模で複雑なサーベイ計画を構築するための新しい機能が追加

✓ 観測を Survey / Pass / Segment の3階層に分けて設計する

フィルタ・露出時間・観測パターンを

「観測テンプレート (Plan)」として定義する

このテンプレートを、どこで・何回使うかを指定する

✓ APTファイルをRTPS上にアップロードし、SOCに提出

タイトル、アブストラクト、PIなどは、RTPSで記入。

# APT の操作概要：カテゴリーの設定

1) 新規作成

2) カテゴリーの設定

Category	Definition	Availability	Allowed Sub-Categories**
GI	General Investigator	All users	OR, DR, CR, TR, AR, CAL
CCS	Core Community Survey	All users	GBTD, HLTD, HLWA
NASA	Observing conducted at the direction of NASA	All users	none
CGI	CGI Technology Demonstration	Internal use only	none
CAL*	Calibration	Internal use only	CGI, WFI, WFSC
ENG*	Engineering	Internal use only	CGI, WFI, WFSC, MU, SK, SC
COM*	Observatory Commissioning	Internal use only	CGI, WFI, WFSC, MU, SK, SC

Sub-Category	Definition
OR	Observational Research
DR	Discretionary Research
CR	Community Research
TR	Theory Research
AR	Archival Research
CAL	Calibration Research
GBTD	Galactic Bulge Time Domain Survey
HLTD	High Latitude Time Domain Survey
HLWA	High Latitude Wide Area Survey
CGI	Coronagraph Instrument
WFI	Wide Field Instrument
WFSC	Wavefront Sensing and Control
MU	Momentum Unload
SK	Stationkeeping
SC	Spacecraft

# APT の操作概要：ターゲット設定

▼ Roman Draft Proposal 00000 (Un

- > Program Information
- ▼ Targets
  - ▼ Fixed Targets
    - 1 Unnamed Target
  - > Mosaic Patterns
  - > Pass Plans
  - > Survey Plan
  - > Activities

Targets of Roman Draft Proposal 00000

## Targets

Fixed Target Resolver Resolve a target name or position

New Fixed Target Create a new Fixed Target

New Region Target Create a new Region Target

Import Targets... Import Fixed Targets from whitespace, CSV, TSV, or VOTable

APT Fixed Target Resolver

Observers must ensure that target coordinates (including epoch and proper motion) are sufficiently accurate for their observations.  
The target resolver lists coordinates as provided by the external catalogs.  
Observers must ensure that all coordinates are in the ICRS reference system.

Search Databases:  SIMBAD  NED  GSC2  2MASS Catalog  GALEX

Search Method:  ⌵

Object Name:

Results (1 objects)

Name	Type	RA	Dec	Reference System	RA PM (mas/yr)	Dec PM (mas/yr)	Epoch	Parallax (mas)	Catalog
ICG 0657-56	Cluster of Gala...	06 58 26.9000	-55 58 21.00	ICRS	0.0	0.0	2000		SIMBAD

Clear Select Object as Target

# APT の操作概要：モザイクパターンの設定

- ▼ Roman Draft Proposal 00000 (Un
- > Program Information
- ▼ Targets
- ▼ Fixed Targets
- 2 CIG-0657-56
- ▼ Mosaic Patterns
- Mosaic 1
- ▼ Pass Plans
- Pass Plan 1
- > Survey Plan
- Activities

Mosaic 1 of Roman Draft Proposal 00000

Number	<input type="text" value="1"/>		
Label	<input type="text"/>		
Pattern Type	Grid <input type="button" value="v"/>		
Number of Rows	<input type="text" value="1"/>	Number of Columns	<input type="text" value="1"/>
Number of Tiles	<input type="text" value="1"/>	Disabled Tiles	No Disabled Tiles
Row Overlap %	<input type="text" value="10.0"/>	Column Overlap %	<input type="text" value="10.0"/>
Row shift (deg)	<input type="text" value="0.0"/>	Column shift (deg)	<input type="text" value="0.0"/>
Slew Back to Start	<input type="checkbox"/>		
Tiling Height	<input type="text" value="22.777 arcmin"/>	Tiling Width	<input type="text" value="44.464 arcmin"/>

Mosaic Tile Editor (click to enable/disable a tile)

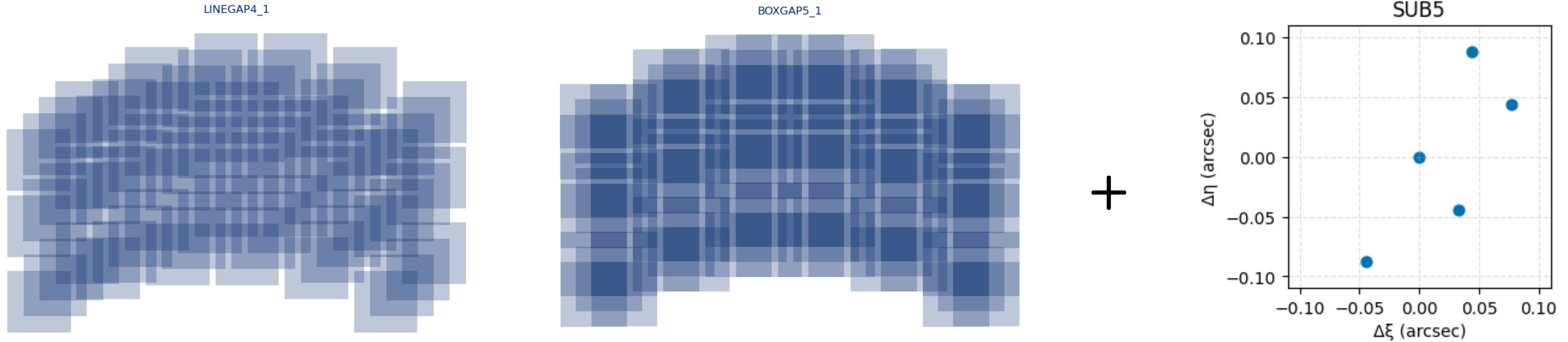
Region Tiling Size
 Hide Sequence Labels

One Tile =  
One WFI Footprint

Approx 25.3 x 49.4 arcmin

# APT の操作概要：ディザパターンの設定

MAテーブル：1回の露光の読み出し方式と露出時間をまとめた設定



## PASS plan

Observation Sequence (1 iteration = 1 Segment of the Pass)

#	Optical Element	MA Table	Mosaic	Dither	Subpixel Dither	Exposures/Dither	Repeat	Visits	Special Requireme...
1	GRISM	SP_400_16	Mosaic 1	BOXGAP5_1	SUB9	5	1	1	No Requirements

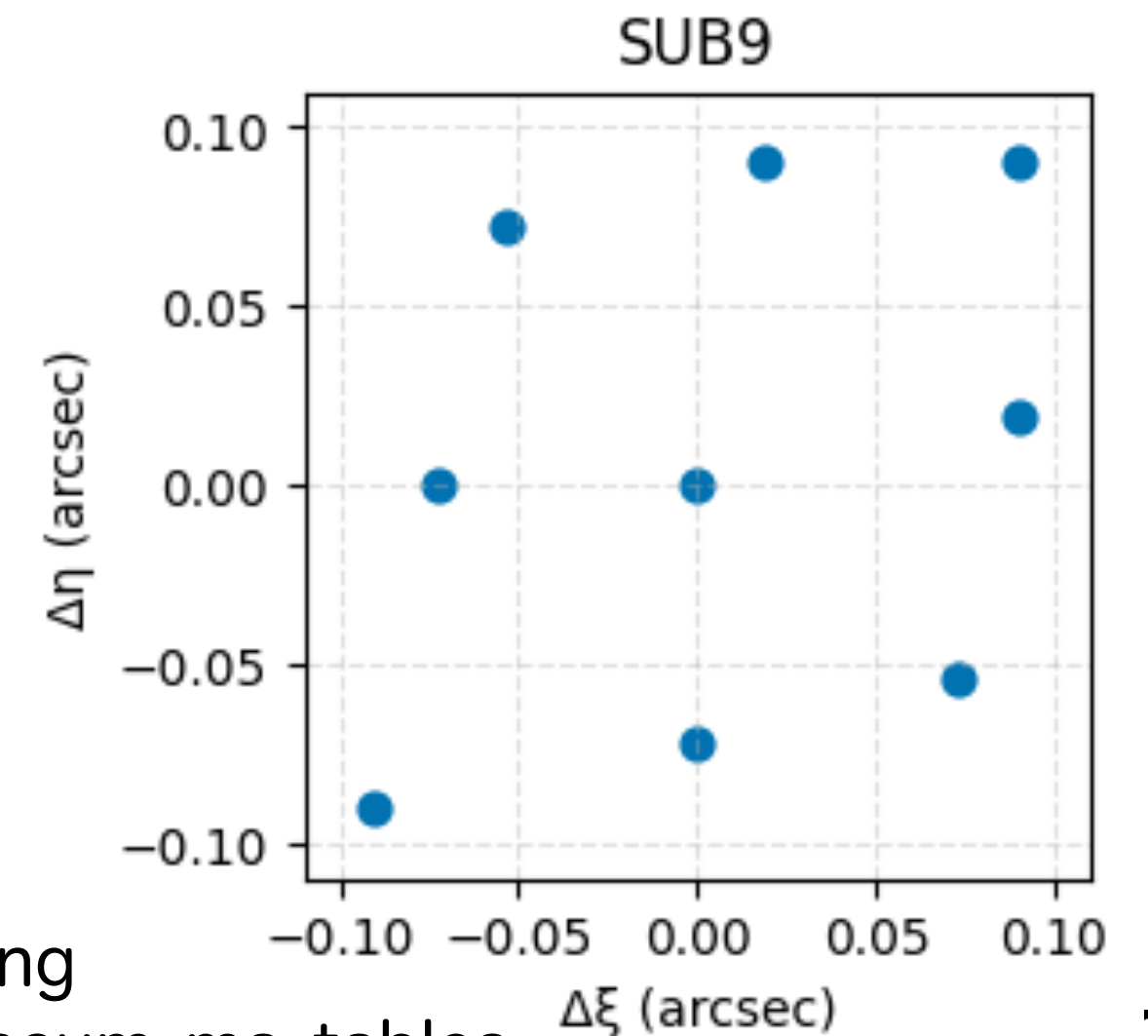
400s

x5

x9

x5

90,000s



-> View in Aladinで実際のFoVを確認

<https://roman-docs.stsci.edu/roman-instruments/the-wide-field-instrument/observing-with-the-wfi/wfi-dithering>

<https://roman-docs.stsci.edu/roman-instruments/the-wide-field-instrument/observing-with-the-wfi/wfi-multiaccum-ma-tables>

[https://rtps-roman.ipac.caltech.edu/users/sign\\_up](https://rtps-roman.ipac.caltech.edu/users/sign_up)

ipac

RTPS  
Roman Telescope Proposal System

Home

## Sign up

First name

Last name

Institution

Email

Password (6 characters minimum)

Password confirmation

Sign Up

[Log in](#)  
[Didn't receive confirmation instructions?](#)

登録が必要です。

Home New Proposal New DR My Proposals Settings Sign Out

Upload JSON  
Import proposal information from a JSON file.

### Proposal General Info

Clear Form

Char Limit: 0/200

Proposal Title

✖ Please enter a proposal title between 1 and 200 characters.

This proposal contains new observations

Science Category

✖ Please select a science category.

Proposal Category

✖ Please select a proposal category.

Hours

Abstract

Char Limit: 0/2000

✖ Please enter an abstract between 1 and 2000 characters.

Summary of Observations

Char Limit: 0/2000