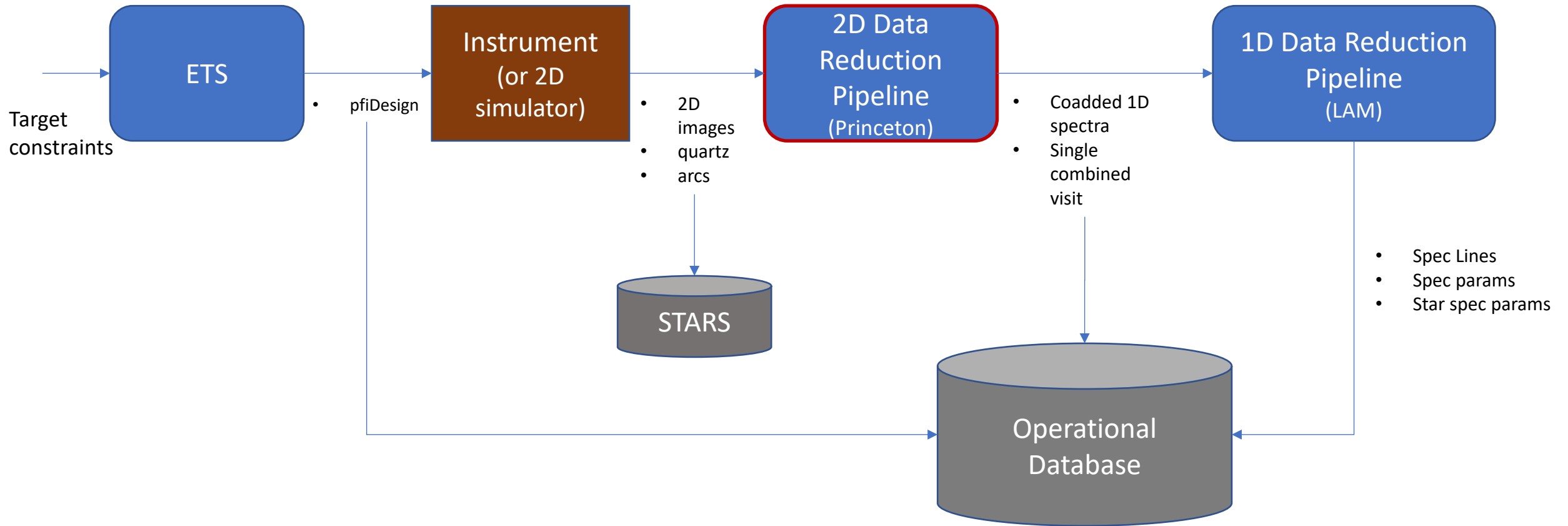
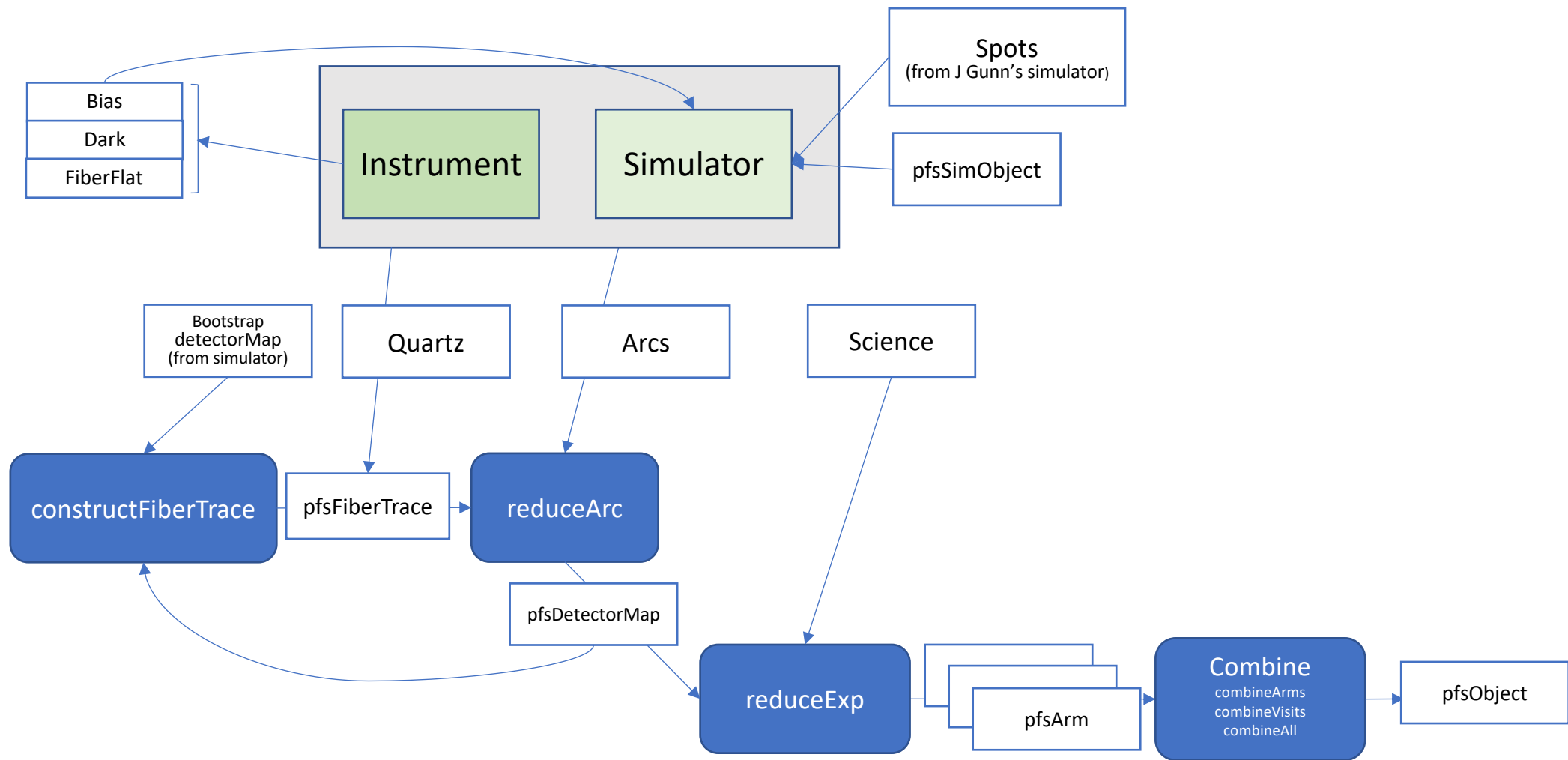


# 2D DRP Pipeline Plan

Hassan Siddiqui, Paul Price, Robert Lupton, Craig Loomis  
Princeton University

# Data reduction schematic





Development

Commissioning

Ops

2018

2019

2020

2021

DRP-4.0

- Basic functionality
- Basic unit tests

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DRP-5.0

- End to end demonstration (2D SIM + 2D DRP)
- Output checked against ETC

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- 3 arms merged
- Initial flat-fielding
- DetectorMap generated
- Initial flux calibration
- More test coverage

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- Initial sky subtraction
- Initial telluric absorption

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### DRP-8.0

- Updated 2D PSF model
- Improved telluric modelling
- Updated sky subtraction (to 1% TBC error level)
- Speed performance improvement
- Bug fixes

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### DRP-9.0

- Improved sky subtraction
- Missing functionality

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### DRP-9.0

- Sky sub to 0.5% level
- Missing functionality
- Refactoring
- Speed improvements

### DRP-5.0

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- Output checked against ETC

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- Initial sky subtraction
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### DRP-9.0

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### DRP-4.0

- Basic functionality
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- More test coverage

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- Improved telluric modelling
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- Speed performance improvement
- Bug fixes

### DRP-9.0

- Sky sub to 0.5% level
- Missing functionality
- Refactoring
- Speed improvements

### DRP-10.0

- TBW

### DRP-5.0

- End to end demonstration (2D SIM + 2D DRP)
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### DRP-7.0

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- Initial sky subtraction
- Initial telluric absorption

### DRP-9.0

- Improved sky subtraction
- Missing functionality

# Personnel

- Paul Price (infrastructure, flux calibration and algorithms)
- Neven Caplar (2D PSF modelling)
  - *Limited availability Feb-Mar 2019*
- Keigo Nakamura (2D sky subtraction)
  - *New developer – needs time to familiarize himself (ready ~Mar 2019)*
- Sogo Mineo, Naoki Yasuda and Masayuki Tanaka (1D sky subtraction and flux calib)
- Craig Loomis (general) [20% FTE]
- Robert Lupton (general) [10%]
- Hassan Siddiqui (algorithms) [20%]