ZTF France

m.rigault@ipnl.in2p3.fr

DR2.5

DR2 SNe Ia
+Subaru SNe Ia & SNLS5yr

ztfin2p3 pipeline

Scene modeling

New Inference
New "LC modeling"

↓

H_0
ΔH_0 **(RA-Dec)**
Inverse Distance Ladder
(Ready direct distance ladder)

$(f)\sigma_8$
Likelihood
Full forward
Density to velocity

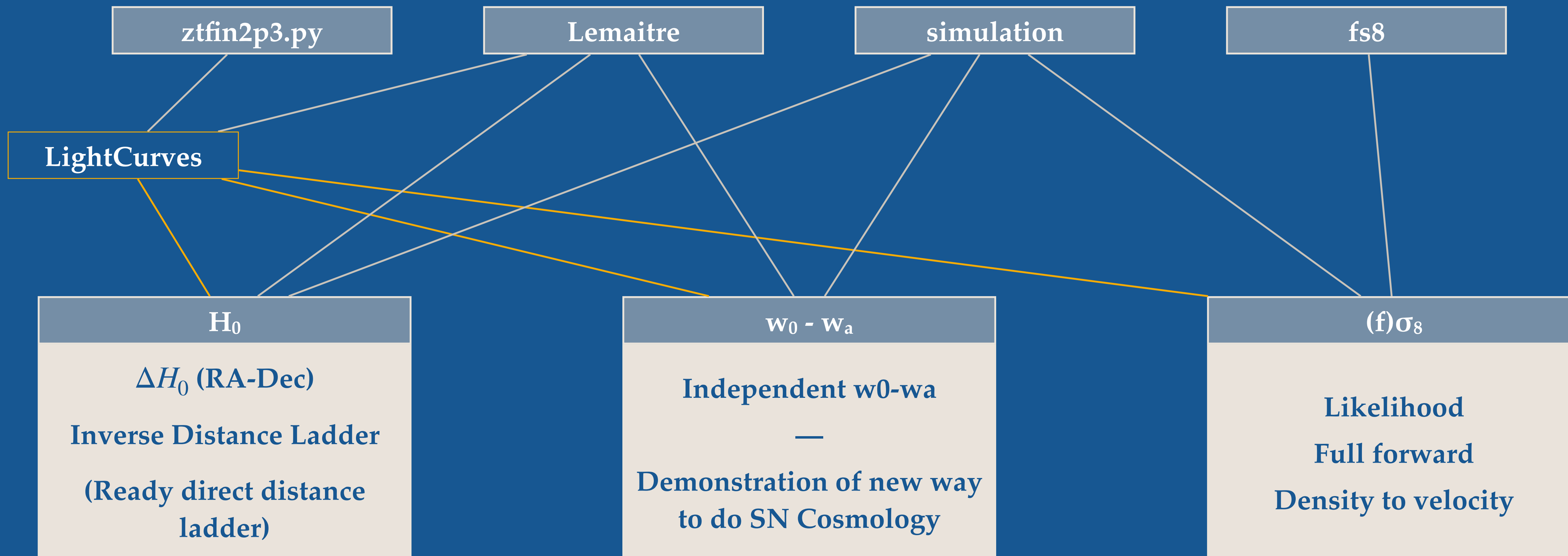| $w_0 - w_a$ |
|---|
| **Independent w0-wa** |
| **(Λ tension test)** |
| **—** |
| **Demonstration of new way to do SN Cosmology** |

DR2.5

DR2 SNe Ia
+Subaru SNe Ia & SNLS5yr

ztfin2p3 pipeline

Scene modeling

New Inference
New "LC modeling"

| ztfin2p3.py | Lemaitre | simulation | fs8 |

LightCurves

| H_0 | $w_0 - w_a$ | $(f)\sigma_8$ |

ΔH_0 (RA-Dec)

Inverse Distance Ladder

(Ready direct distance ladder)

Independent w0-wa

—

Demonstration of new way to do SN Cosmology

Likelihood

Full forward

Density to velocity

ztfin2p3.py

Lemaitre

LightCurves

Sensors ✓

Pocket Effect
(Bright Fatter)
—
Field #600 validation

Time Scale: Feb 2025

Camera ✓

StarFlats
Filters (incl. Gaia)
—
Aperture photometry

Time Scale: Feb 2025

Ztfimg ✓

What is happening
Prod speed
No Science concept
—
No much details

Time Scale: Feb 2025

Ubercal ↻

Self vs. Gaia vs. PS1
—
What is missing ?

Time Scale: march 2025

LC release ↻

PSF modeling
Link with all other
products.

Time Scale: march 2025

ZTF DR2.5
Lightcurves
internal release
Christmas 2024

Skysurvey ✓	**DataChallenges** ↻	**SN Modeling** ↻
ModelDag Technical aspect Examples	Concept of work DC1, DC2, DC3 summaries (Incl. fs8 modeling)	What we think the Underlying surveys modelling is (DC2/5)
Time Scale: Janv 2025	Time Scale: April 2025	Time Scale: June 2025

Missing 3D in SkySurvey. This is now the top priority for the Sim development.
(Help from Paris and Marseille needed)

NaCl ✓

DC1: Methodology
Why NaCl
NaCl (simu vs. Fit)
NaCl vs. SALTx

Time Scale: Feb 2025

Selection Functions ↻

PeTS (SN selection)
Redshifts
Host Information
Photo-Typing

Time Scale: May 2025

Photo-Typing. To be checked

*Host Info uniformity.
Support needed*

Edris ↻

How does this work
Why Edris
—
Demonstrated on DC2

Time Scale: June 2025

Core worry to me

Cosmology

Joint Calibration

ZTF | SNLS | HCS
—

One pipeline to rule them all

Time Scale: July 2025

Camera ✓

StarFlats
Filters (incl. Gaia)
—

Aperture photometry

Time Scale: Feb 2025

Ztfimg ✓

What is happening
Prod speed
No Science concept
—
No much details

Time Scale: Feb 2025

Ubercal ↻

Self vs. Gaia vs. PS1
—

What is missing ?

Time Scale: march 2025

LC release ↻

PSF modeling
Link with all other products.

Time Scale: march 2025

ZTF DR2.5
Lightcurves
internal release
Christmas 2024

Sensors — Matthieu

Camera — Marie

ztfimg — Mickael

Ubercal — Benjamin

LC release — Nicolas

skysurvey — Mickael

SN Complex Modelling — Madeleine

Data Challenges Concept — ???

NaCl — Mahmoud

Selection Functions (incl. PeTS) — Thomas

EDRIS *demonstrated*   **EDRIS** — Dylan

Twin *demonstrated*   **Twin** *Hubble Diagram* — Constance

Delta H₀ (on simu)   **Delta H0** — Chloé

Joint Calibration — Nicolas

w₀-wₐ — Marc

Inverse Distance Ladder — Brodie

Fs8: Likelihood — Rafael

Fs8: Full Forward — Aurélien

Fs8: Density-to-velocity — *?Paris?*

Cluster Mass from SN Ia — Florian

DESI YR3

LC IDR

3D SkySurvey

Back up plans

Traing NaCl