

# LSST science interests

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DARK/NBI

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## Verdens største digitalkamera skal fotografere milliarder af galakser

15. september 2015 kl. 13:51 [0 kommentarer](#)

I løbet af 10 år skal himmelrummet over den sydlige halvkugle affotograferes ved hjælp af et 3,2 gigapixel kamera i et nyt, stort teleskop, der skal stå klar i 2022. Astronomerne kan næsten ikke vente.

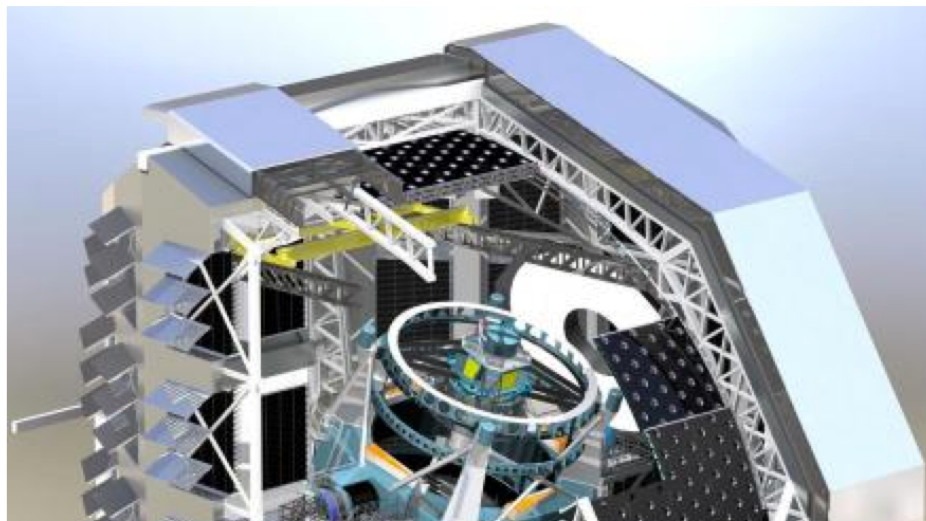
Emner: [Astronomi](#)

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Af: [Henrik Bendix](#), Journalist

Universet skal kortlægges, og det kræver et nyt, stort teleskop med et kamera ud over det sædvanlige.

Sådan et kan forskerne på SLAC National Accelerator Laboratory i USA nu begynde at bygge, efter at de amerikanske myndigheder har [vendt tommelfingeren opad](#) for projektet.



# Supernovae and transients



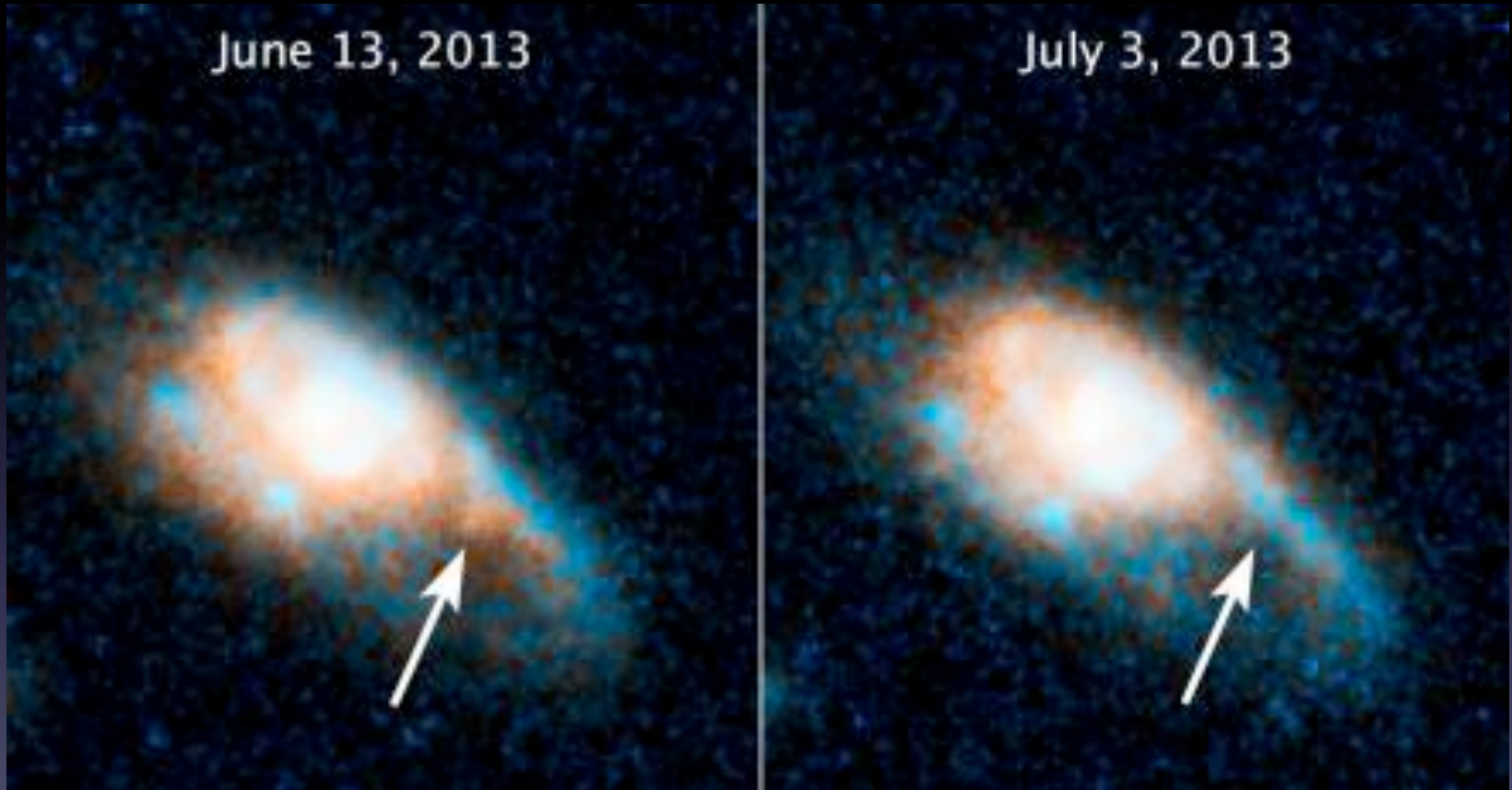
Explosive formation of elements, molecules, dust

New types of transients (X-shooter/NTE/SOXS/JWST/EUCLID...)

Lensed supernovae, superluminous supernovae, standard candles

Theory of transients

# Gravitational wave counterparts

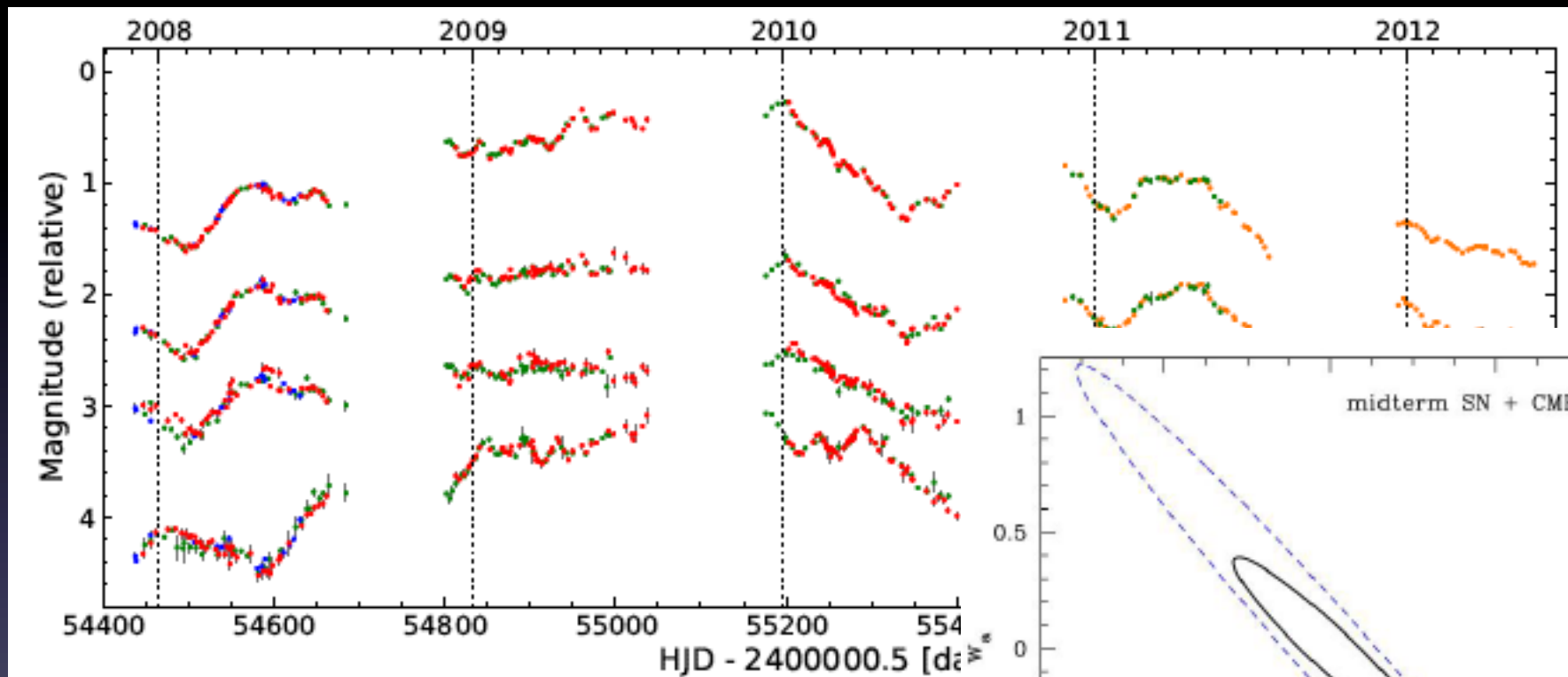


Short gamma-ray bursts = merging neutron stars = r-process **kilonovae**

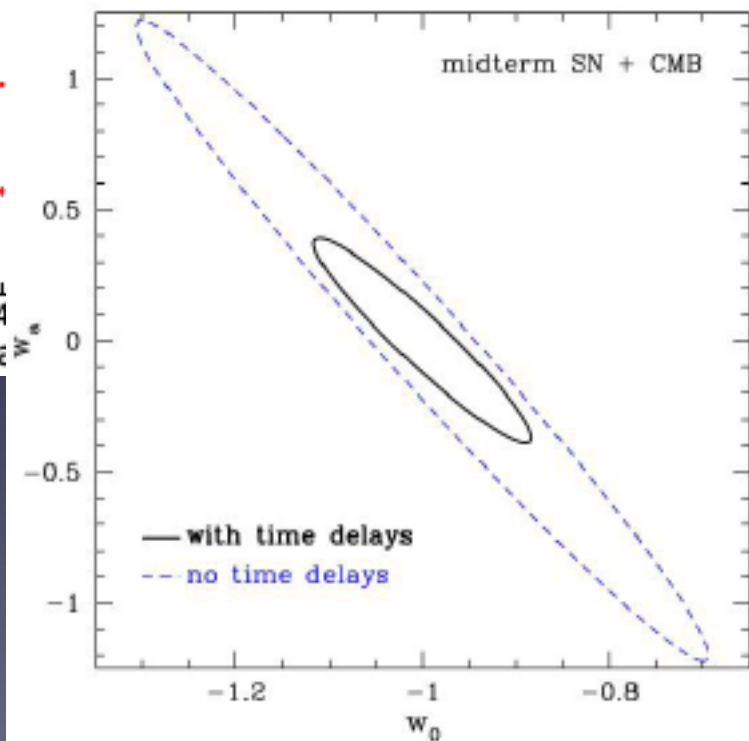
Detection with LSST/A-LIGO/Swift/SVOM

Follow up with X-shooter/NTE/SOXS/JWST

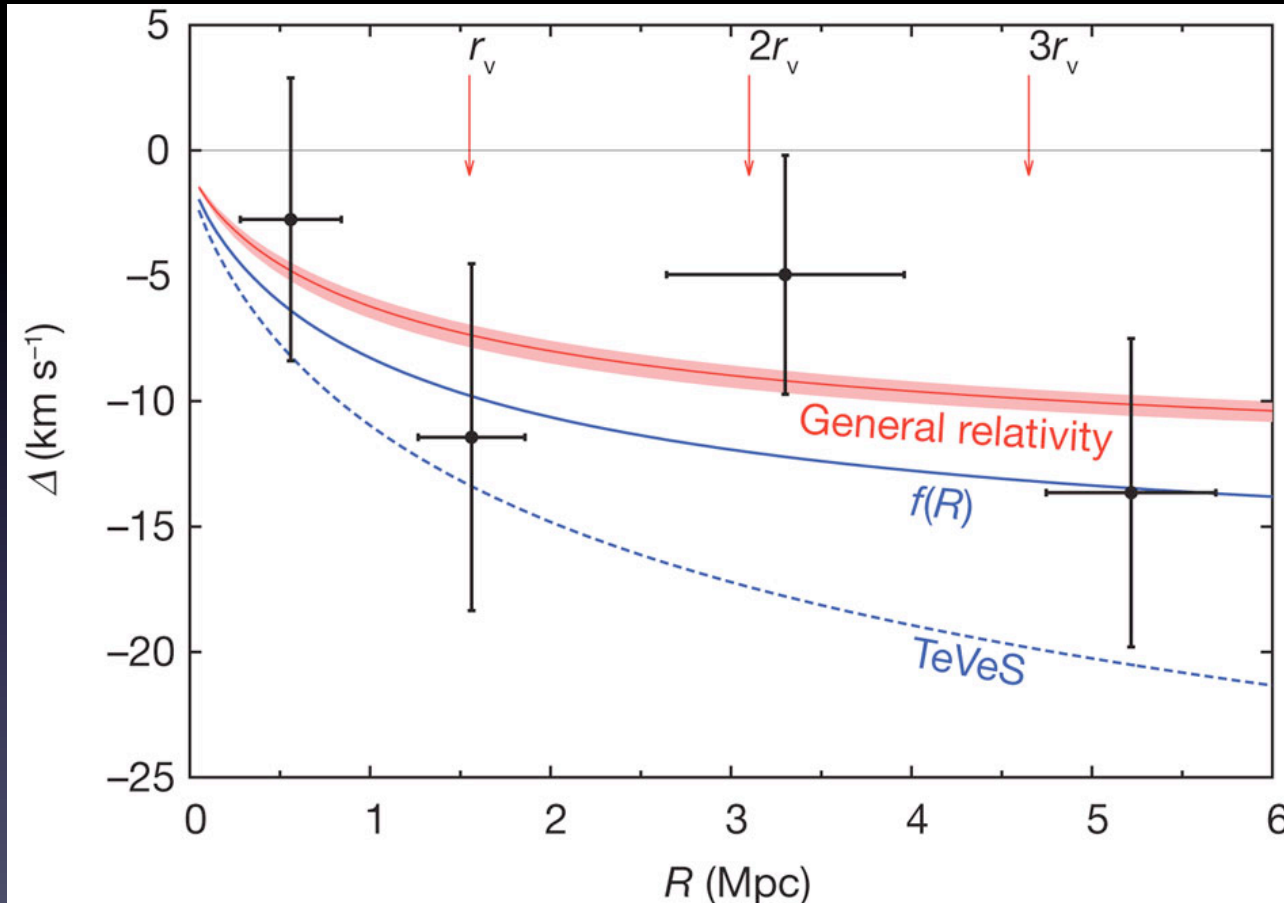
# Time delay science



Hundreds of accurate time delays  
QSOs and supernovae  
Competitive constraints on dark energy  
*JWST/E-ELT*



# Gravitational redshifts in clusters



Millions of accurate photometric redshifts of galaxies in clusters  
Constraints on dark matter + alternative theories of gravity

# *EUCLID* synergy

Denmark one of few partners who are/will be full partners of both LSST and *EUCLID*

*EUCLID*: Near-infrared

Photometric redshifts

Dark energy

