

Gruppe um Prof. Peter Schneider

Forschungsschwerpunkt
Gravitationslinsen-Effekt und Kosmologie

Sprecher: Patrick Simon



Peter Schneider

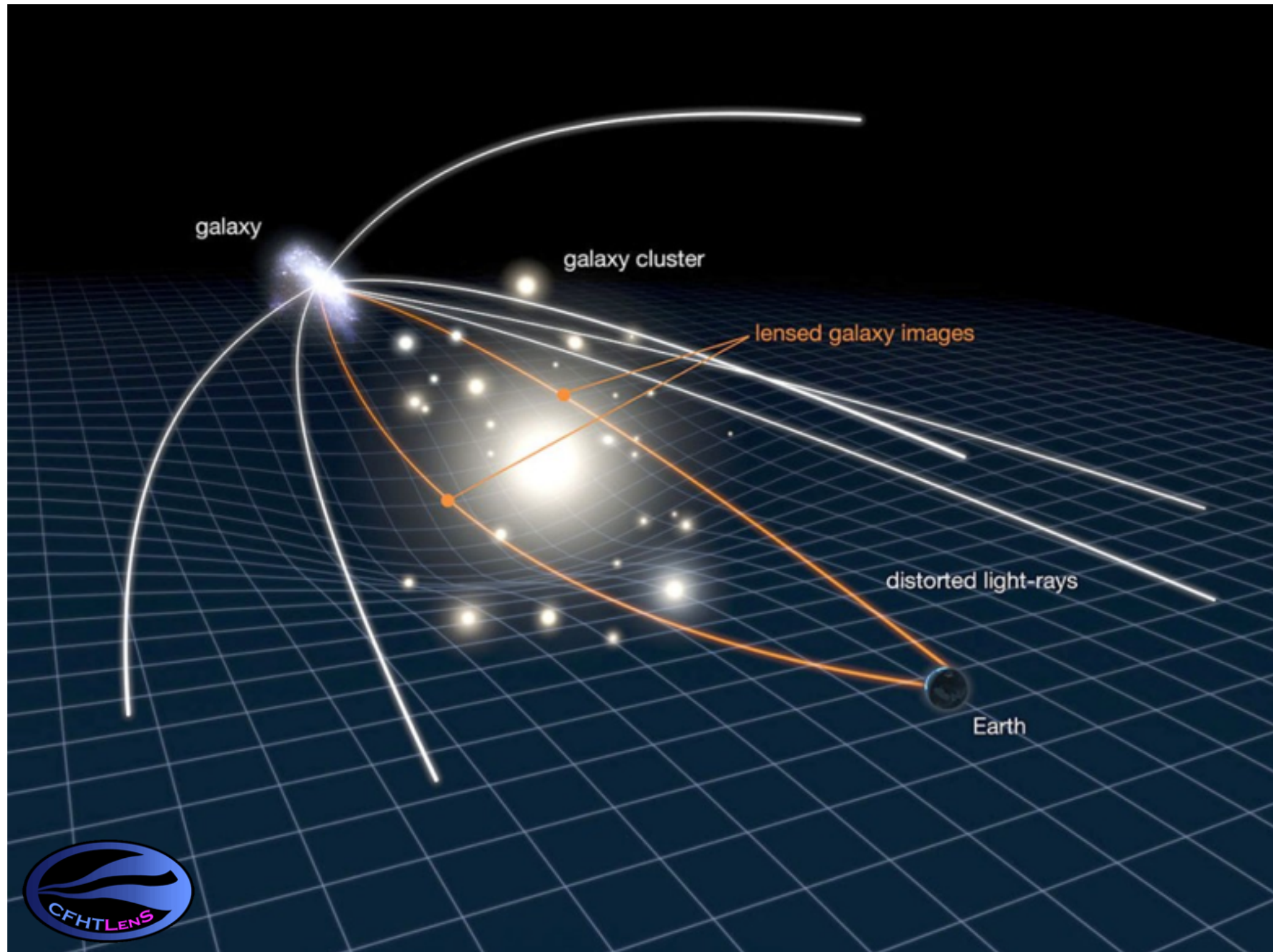
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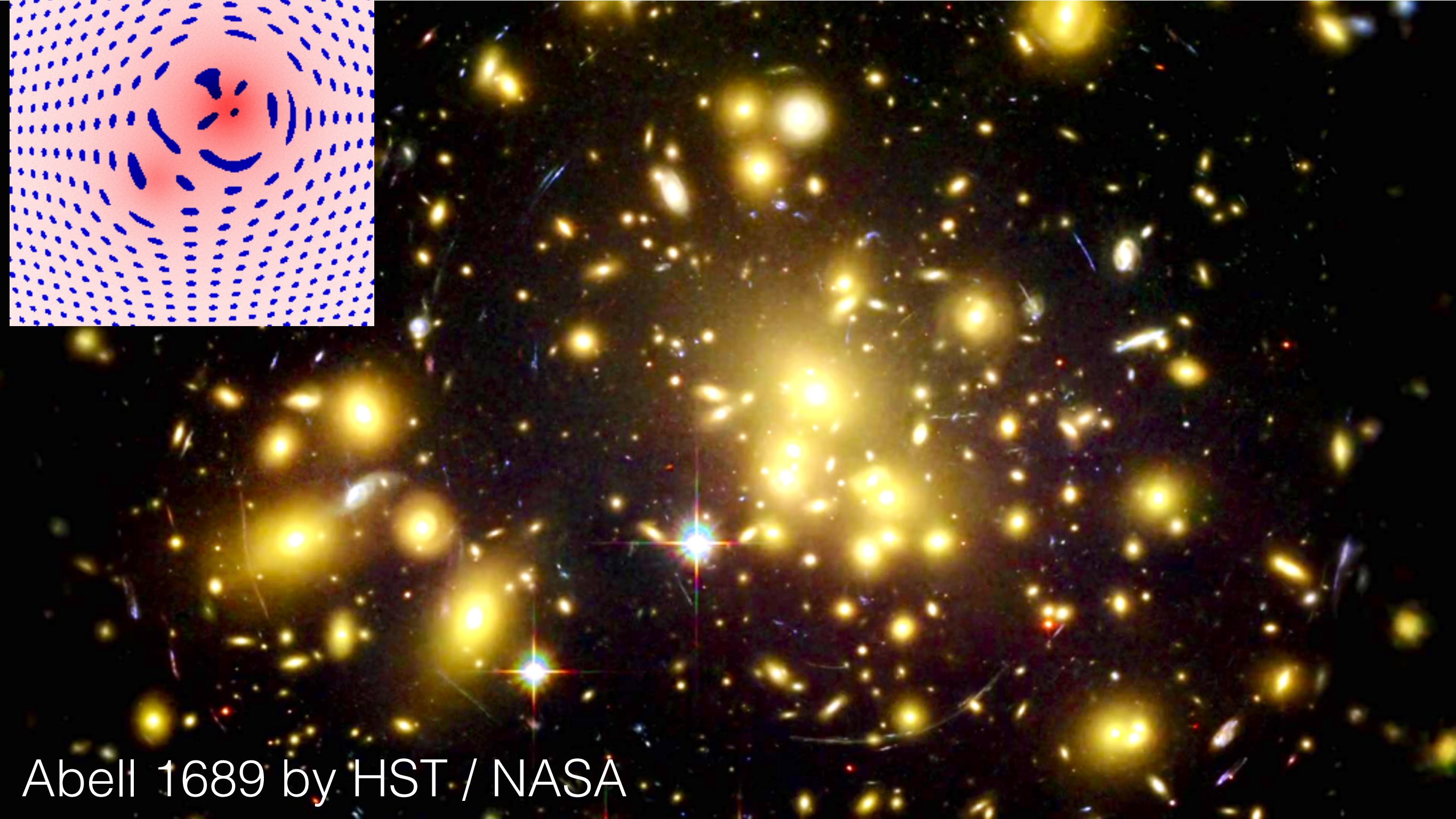
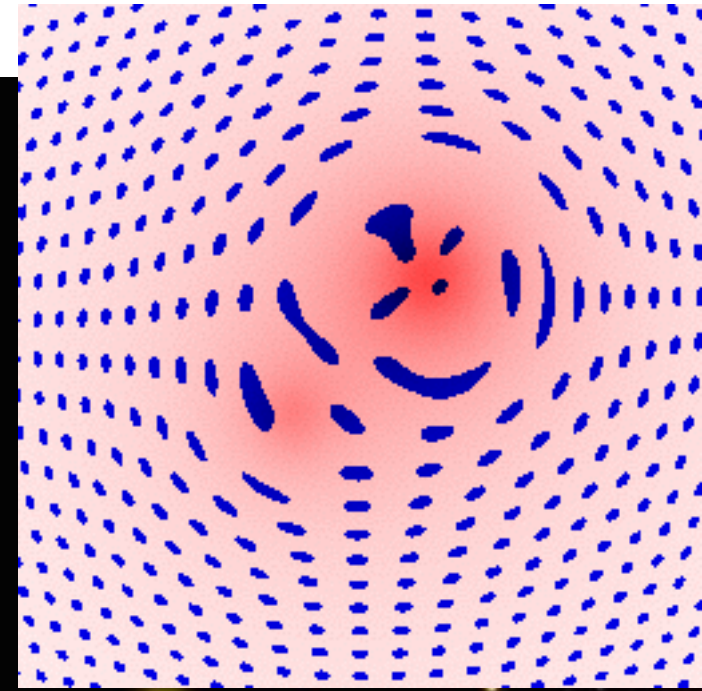
Chris Boever (Bachelorstudent),
Sabine Derdau (Sekretariat),
Dr. Thomas Erben,
Dominik Klaes (Doktorand),
Dr. Ole Marggraf,
Sandra Martin (Doktorandin),
Dr. Nicolas Martinet,
Dr. Reiko Nakajima,
Hananeh Saghiha (Doktorandin),
Dr. Tim Schrabbach,
Shafiee Zeinab (Doktorandin),
Dr. Huan Yuan Shan,
Dr. Zahra Sheikhabaee,
Prof. Dr. Peter Schneider,
Dr. Patrick Simon,
Dr. Malte Tewes,
Sandra Unruh (Doktorandin),
Jan-Luca van den Busch (Praktikant),
Rongchuan Zhao (Masterstudent)



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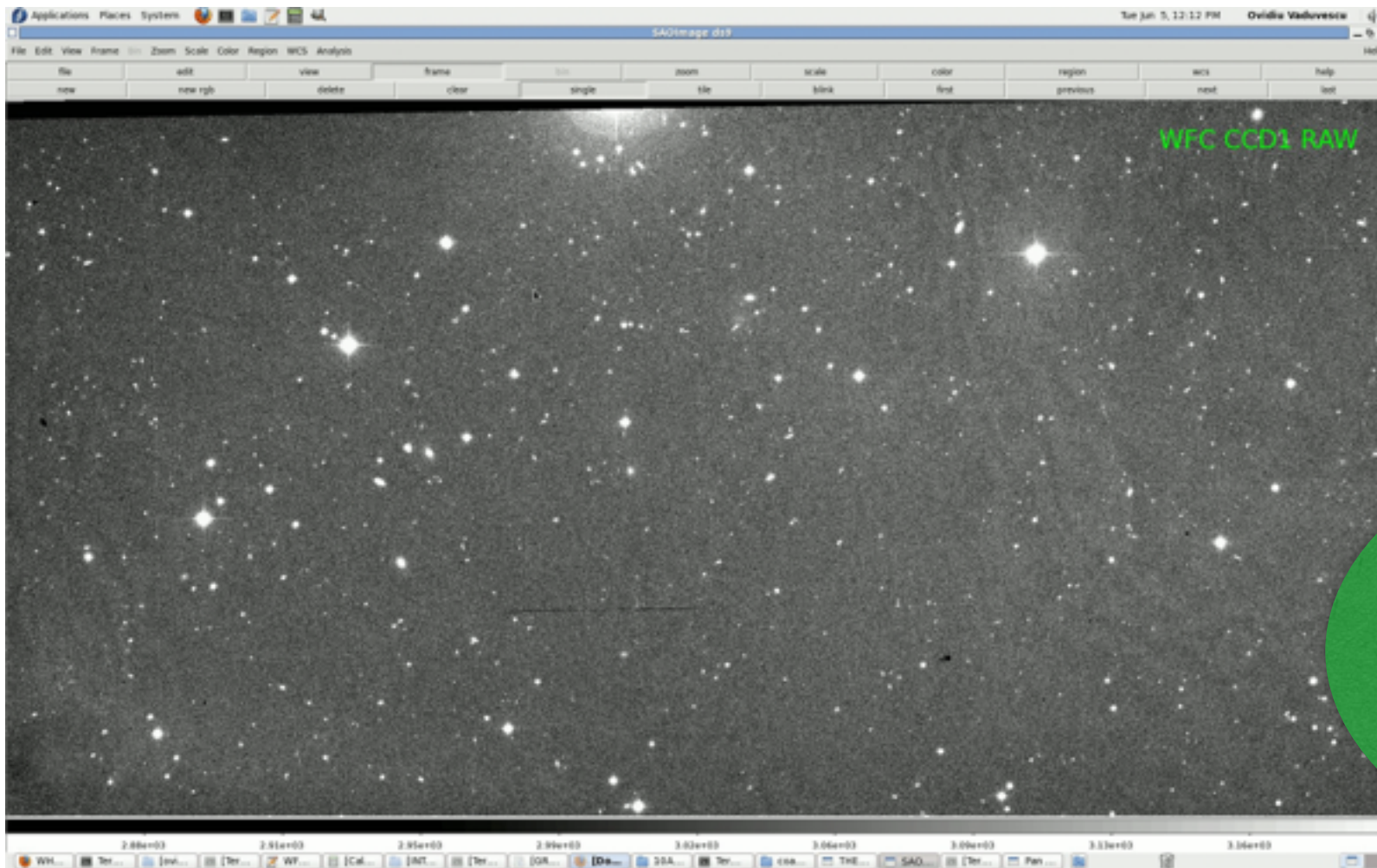
Illustration des Gravitationslinsen-Effekts an einem Galaxienhaufen





Abell 1689 by HST / NASA

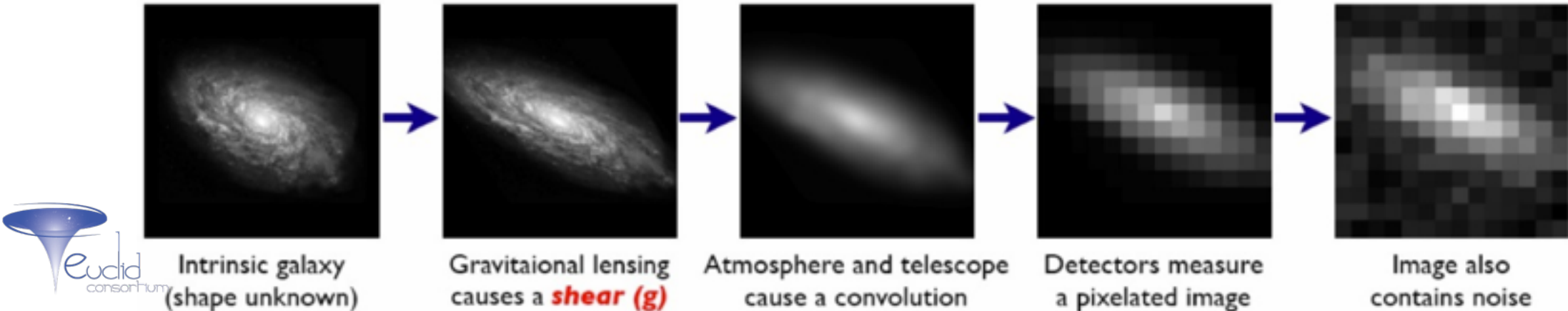
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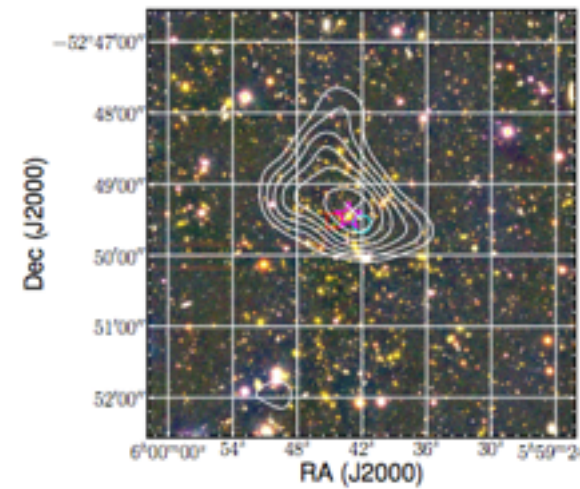
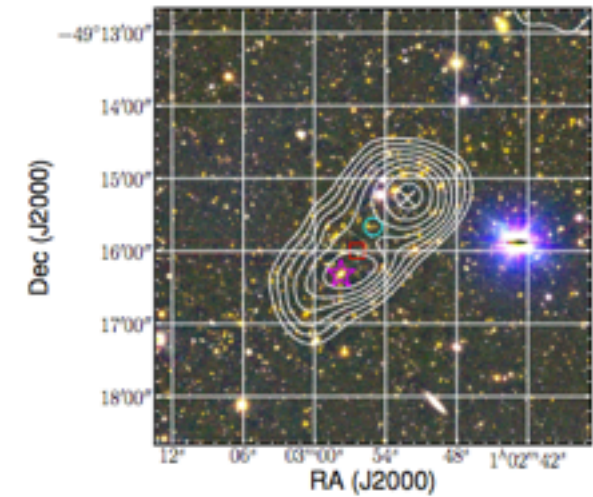
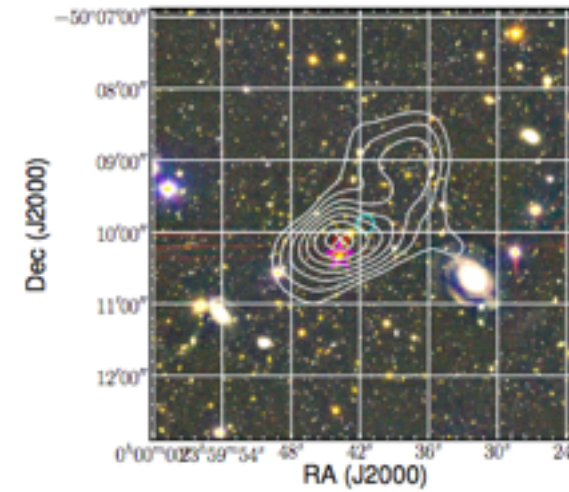
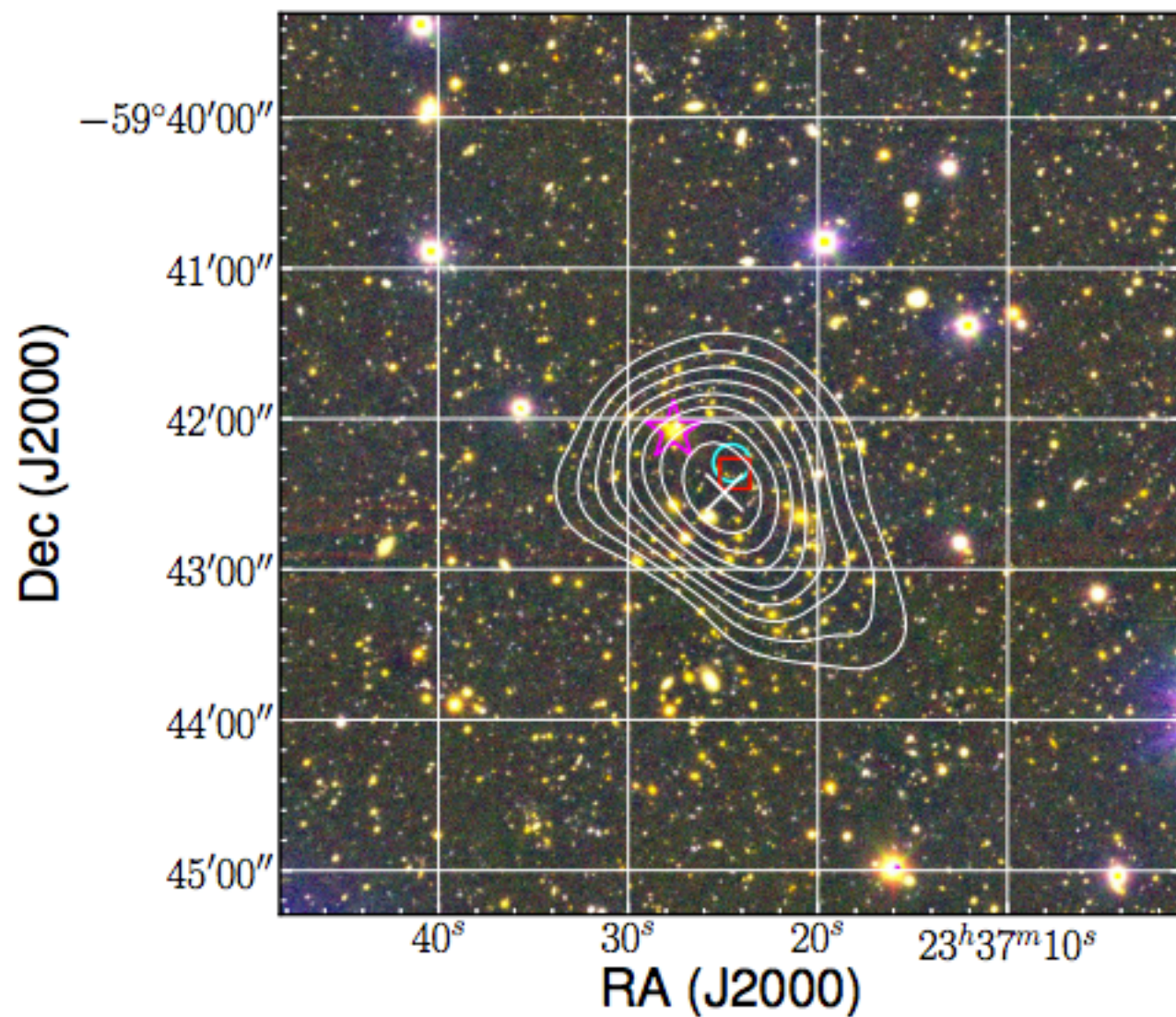
Datenreduktion,
Objektidentifikation,
Photometrie,
Scherungsmessung

von Thomas Erben / Isaac Newton Group of Telescopes

Galaxies: Intrinsic galaxy shapes to measured image:



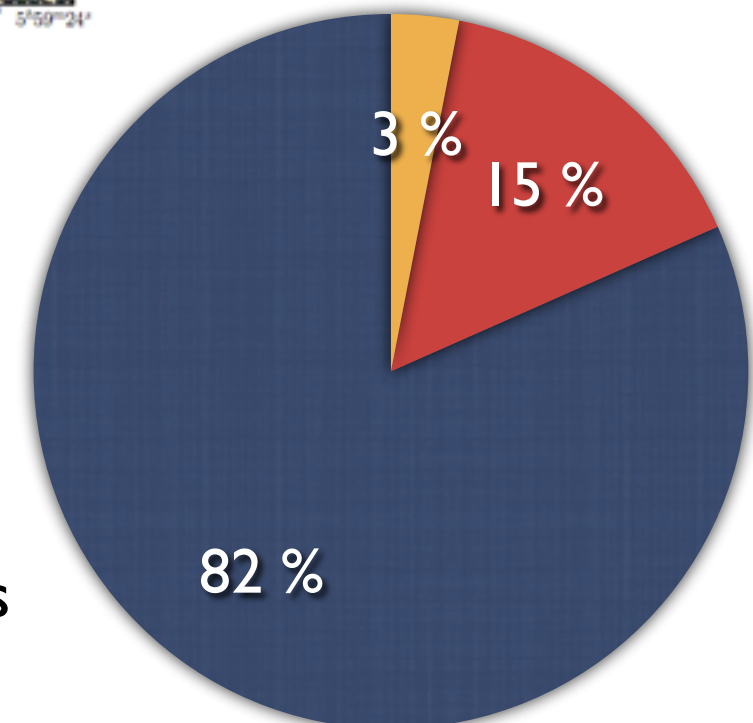
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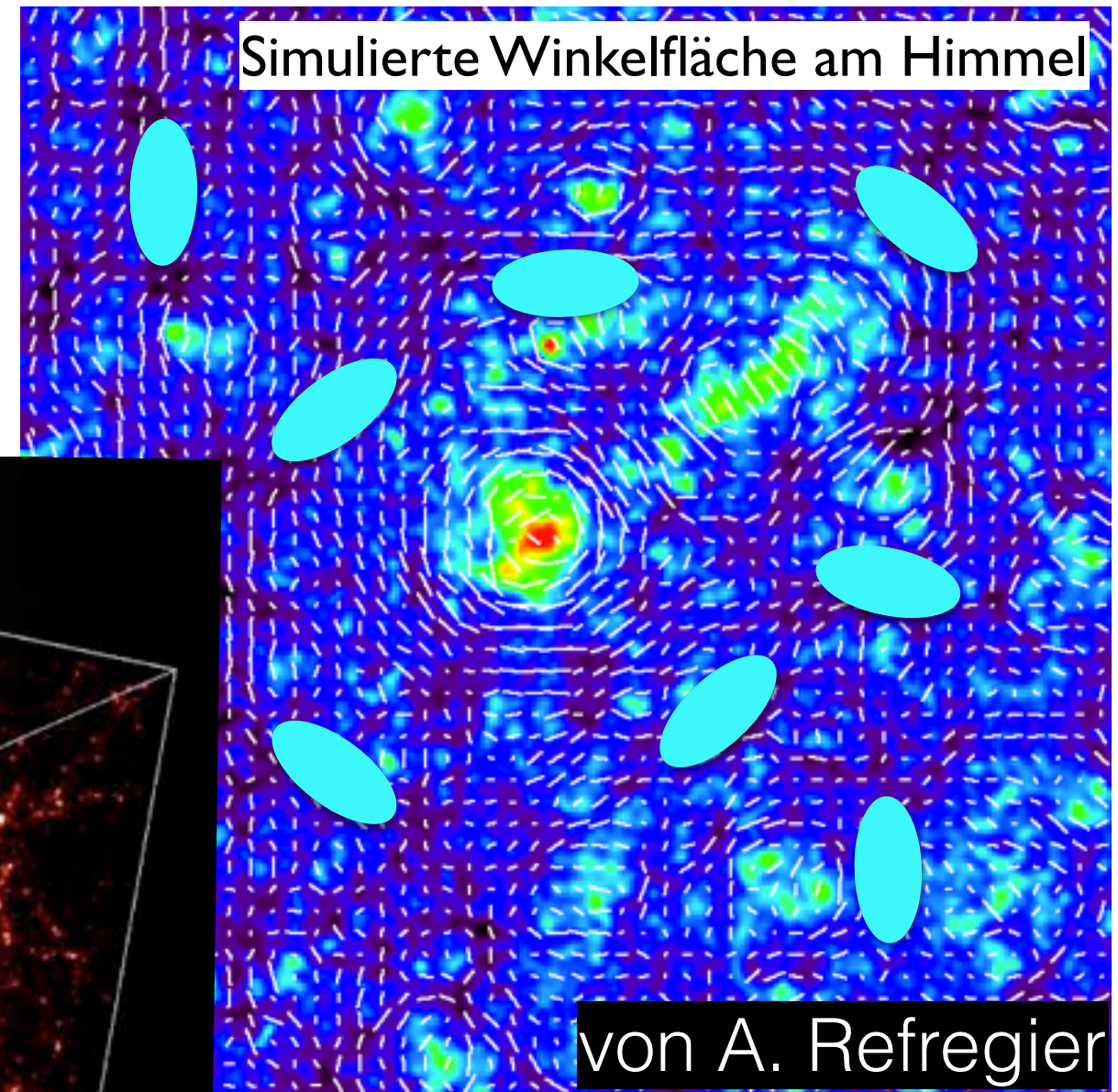
Schrabback, T. et al., 2016, MNRAS

Physik von
Galaxienhaufen

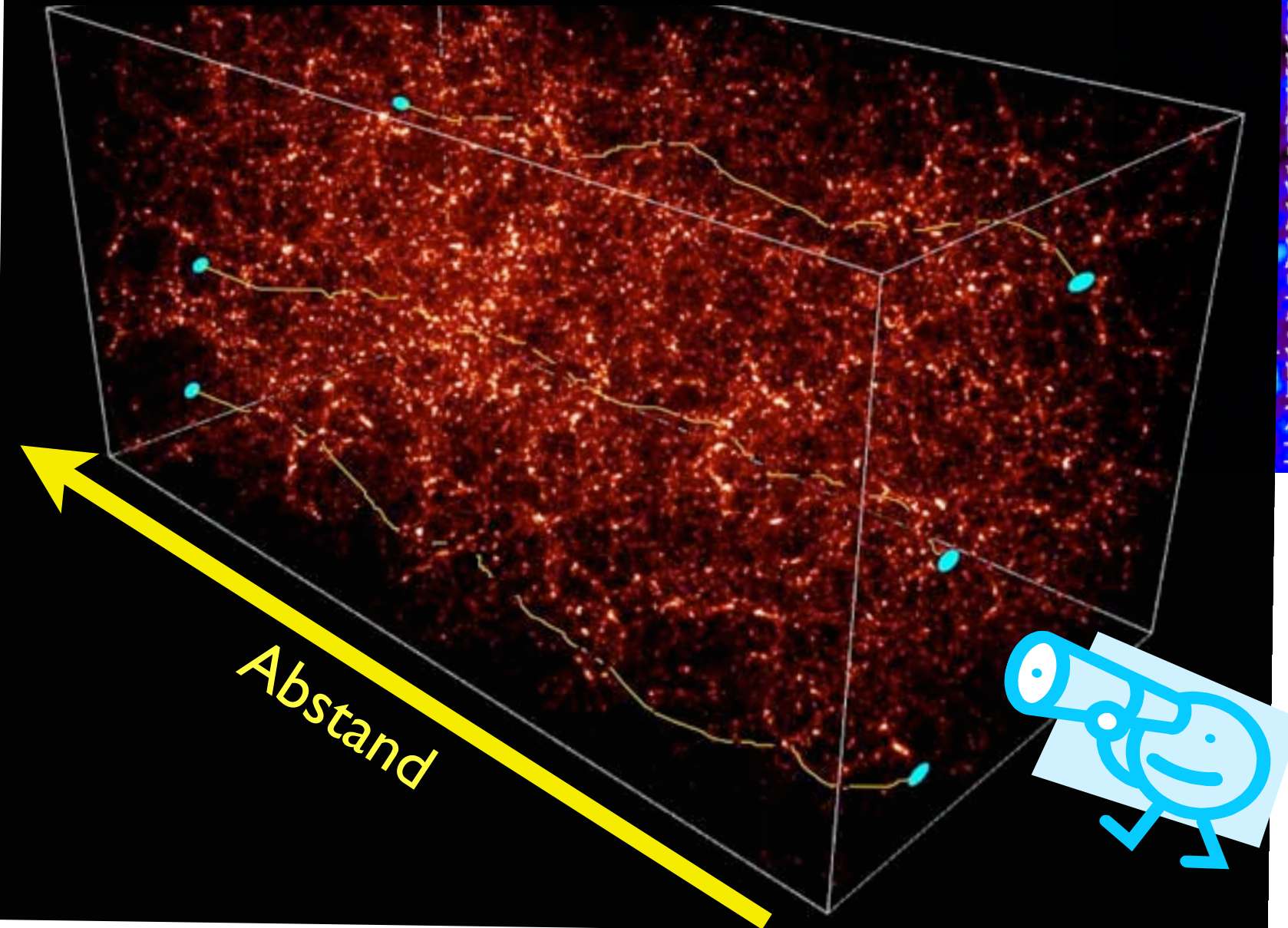
- Galaxien
- intergalaktisches Gas
- Dunkle Materie



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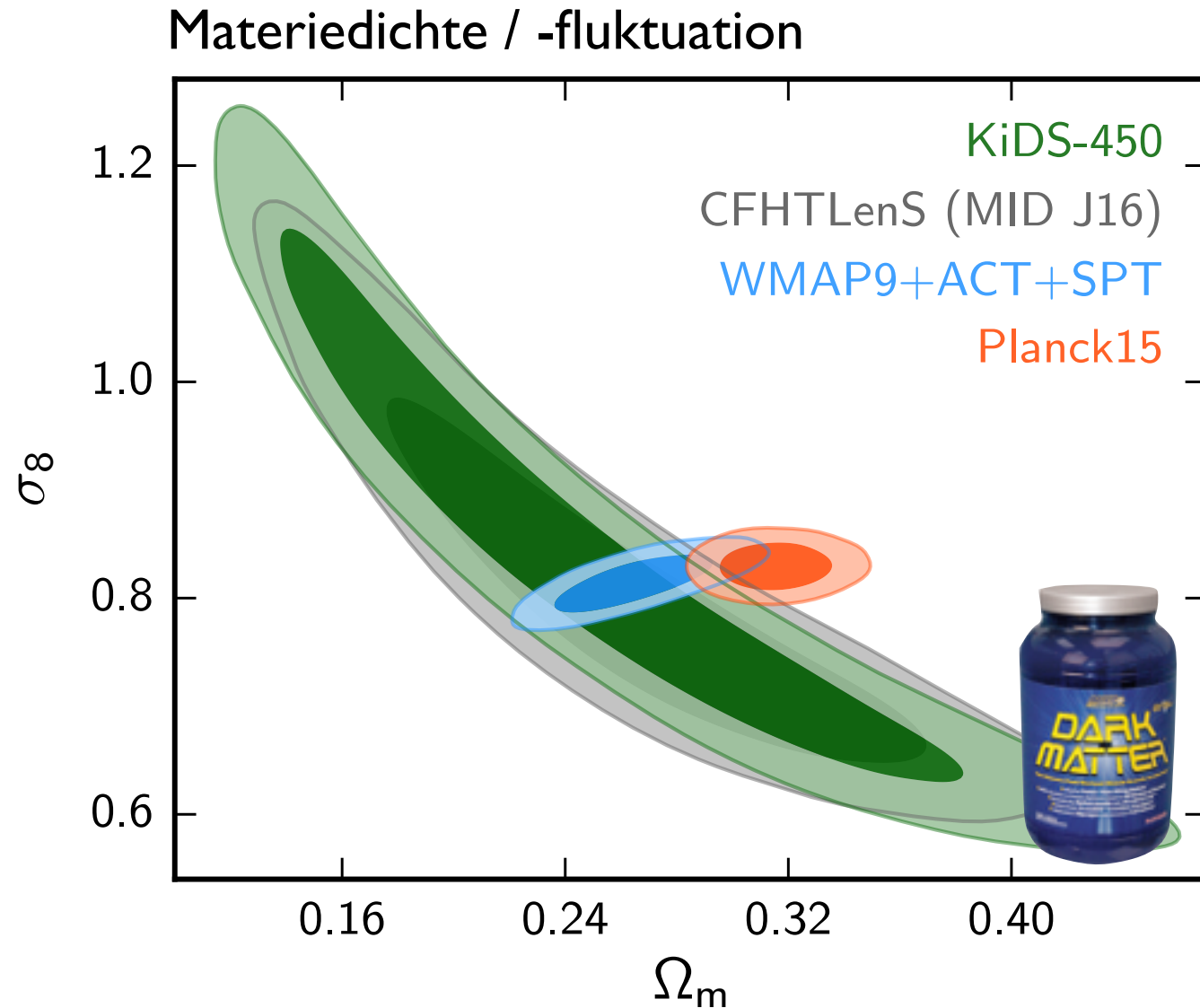


von S. Colombi, IAP Paris

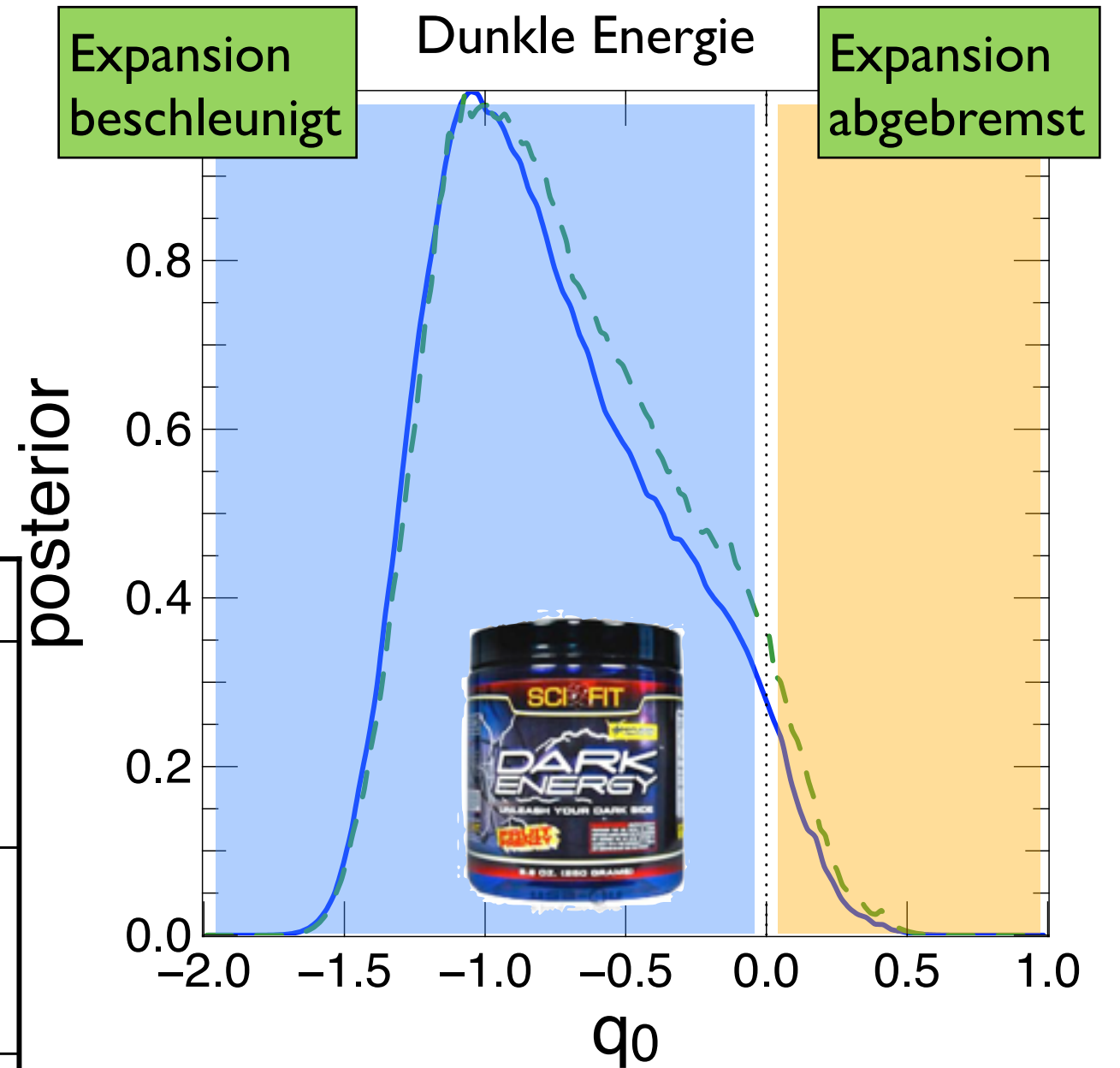


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Kosmologische Messungen

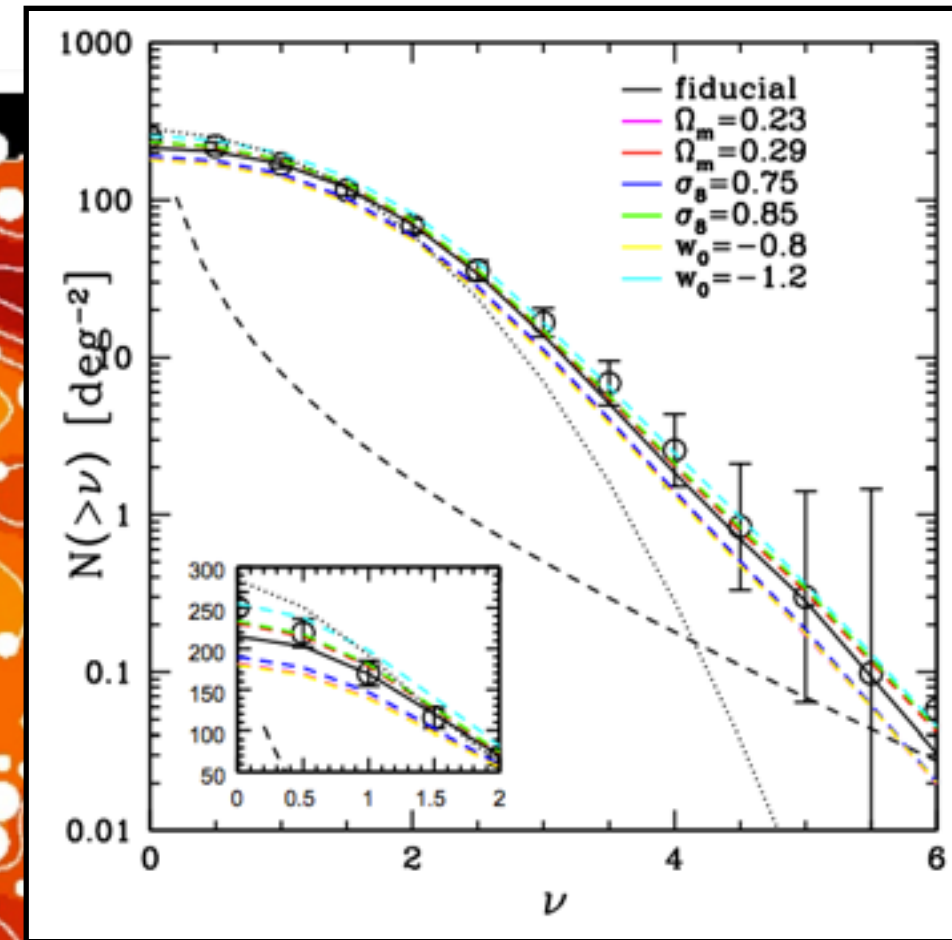
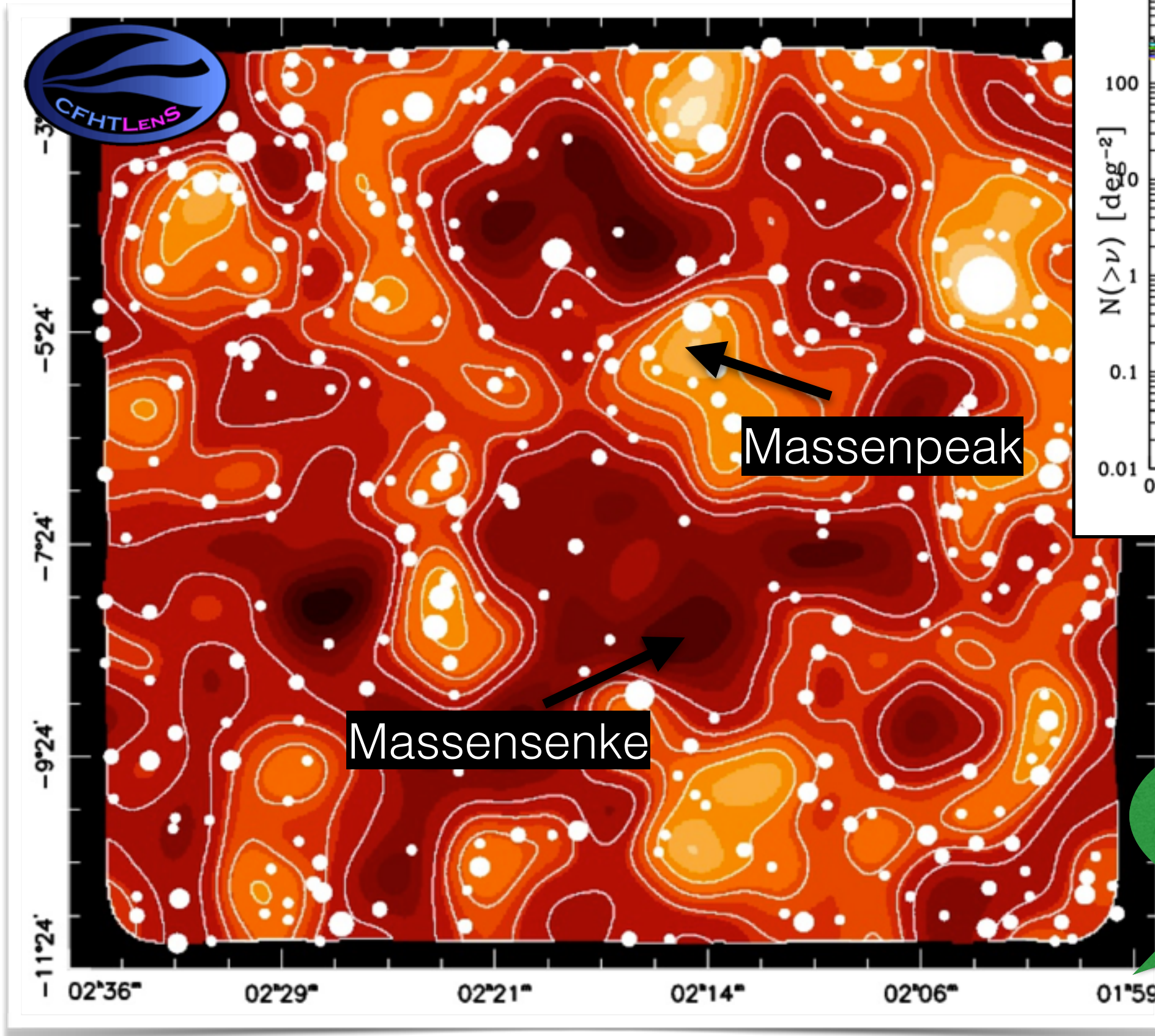


Hildebrandt, H. & KiDS Consortium, 2016, MNRAS



Schrabback, T. et al., 2010, A&A, 516, 63

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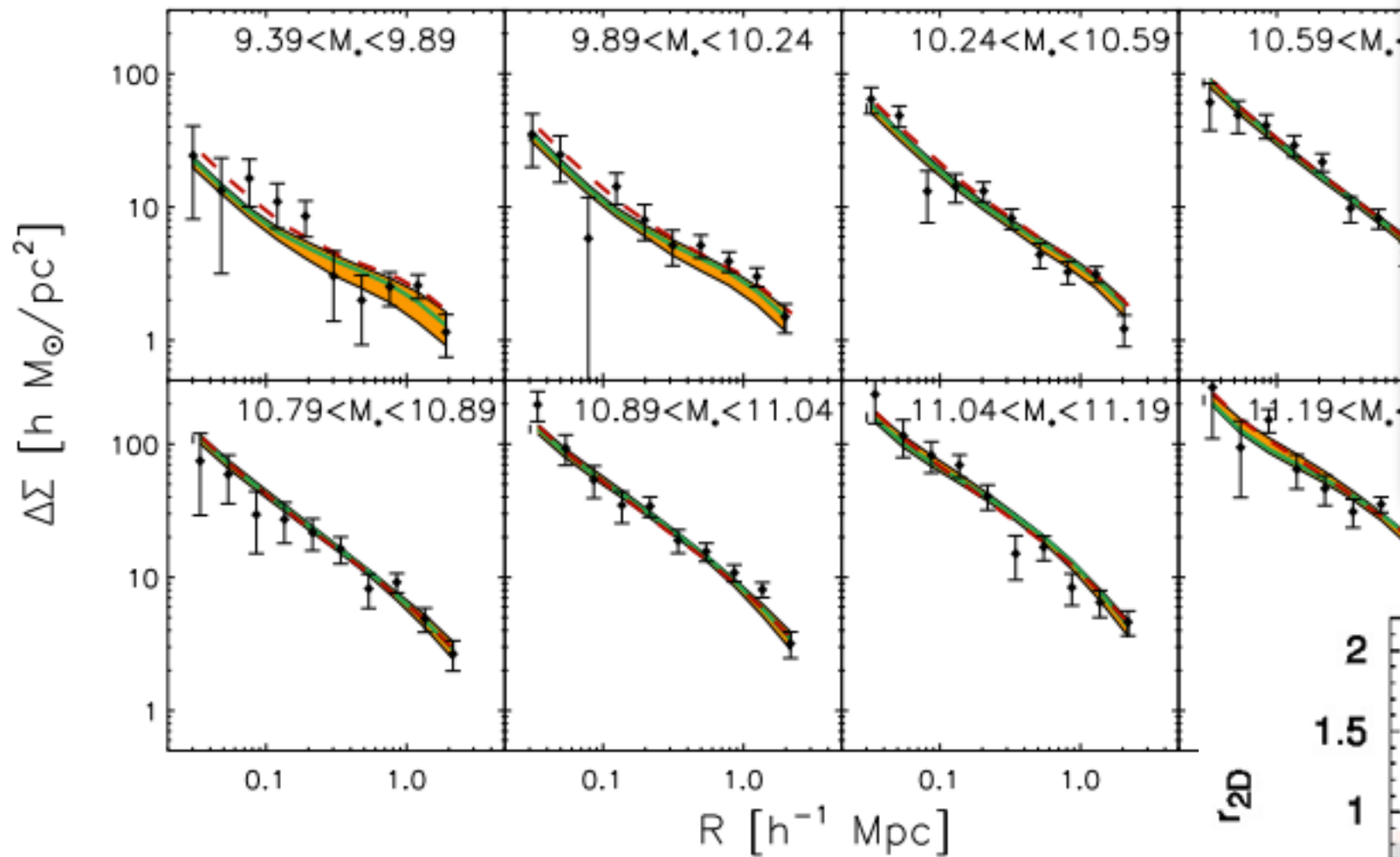


Shan, H. et al., 2014,
MNRAS, 442, 2534

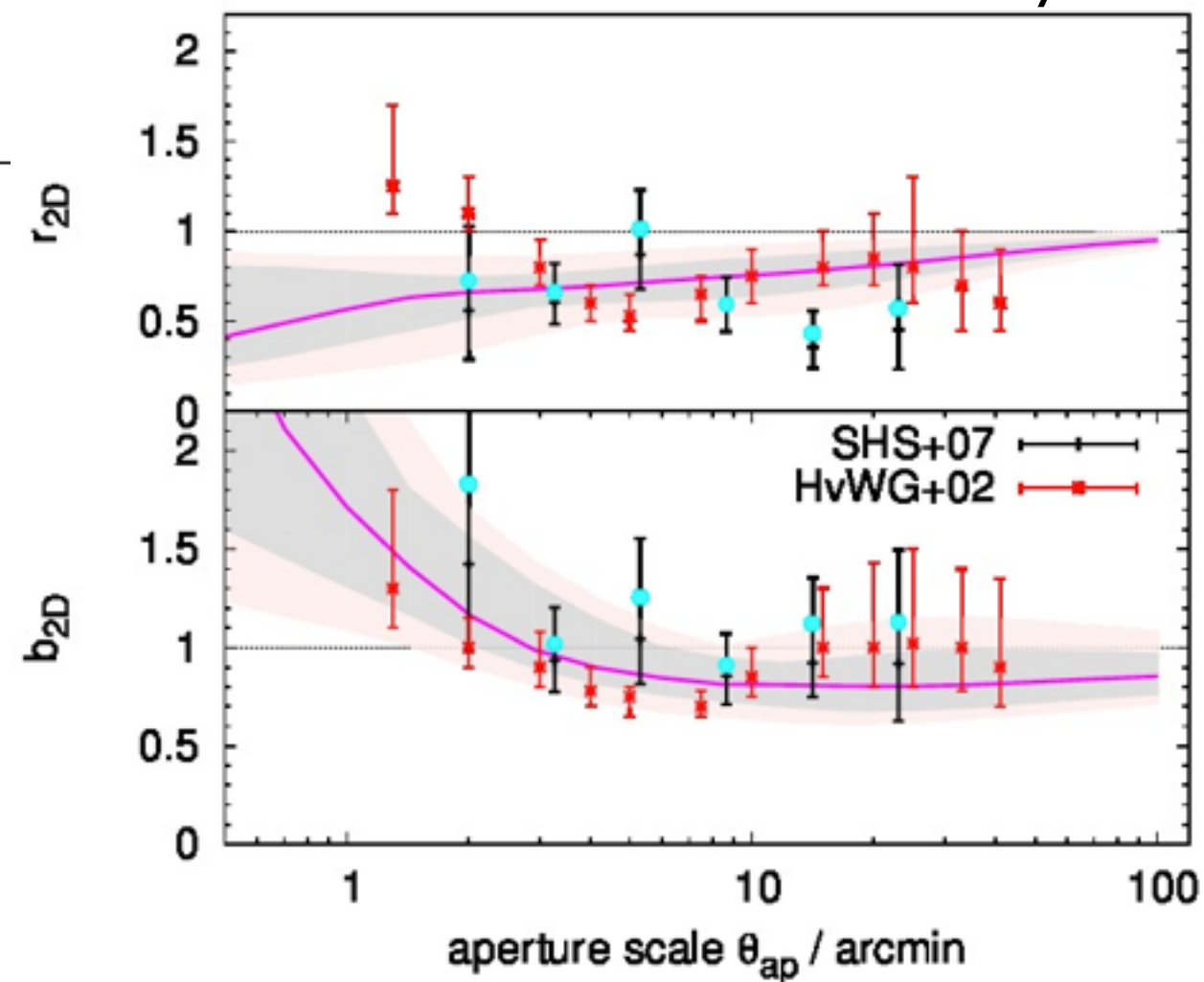
Kartographie

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Galaxy-Galaxy Lensing



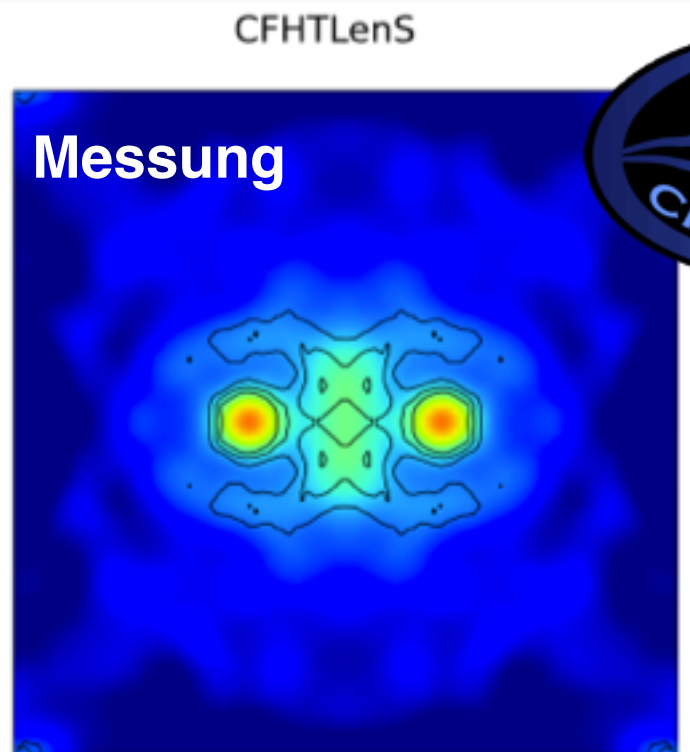
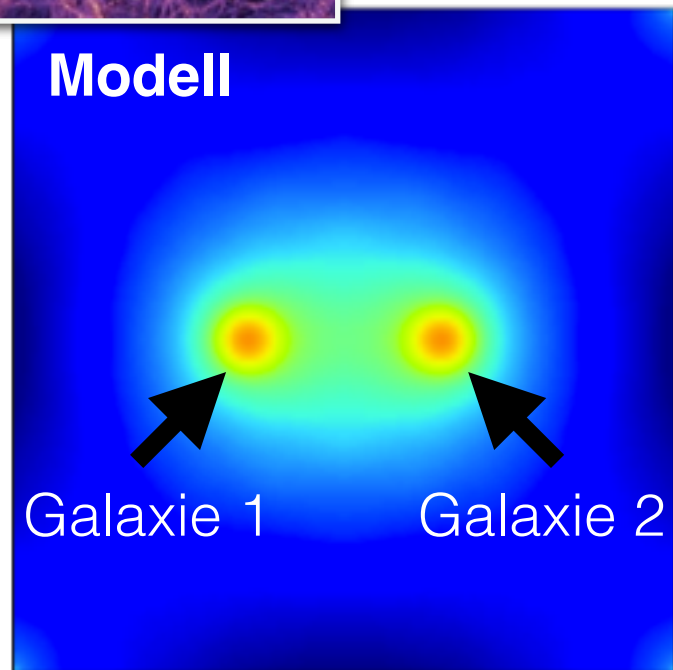
Galaxy Bias



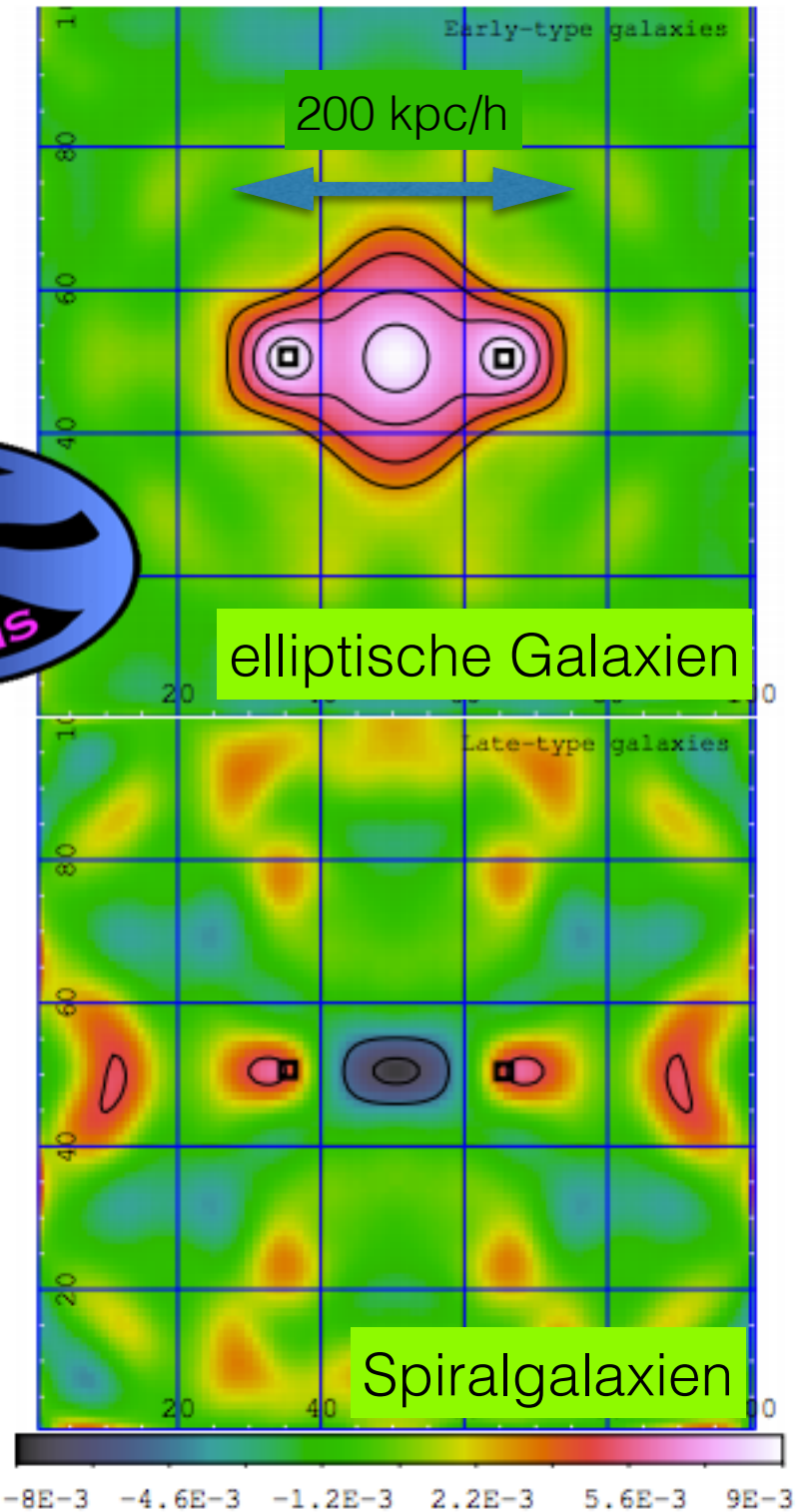
van Uitert, E. et al., 2016, MNRAS, 459, 325

Korrelations-
analysen

Tests von Galaxienmodellen



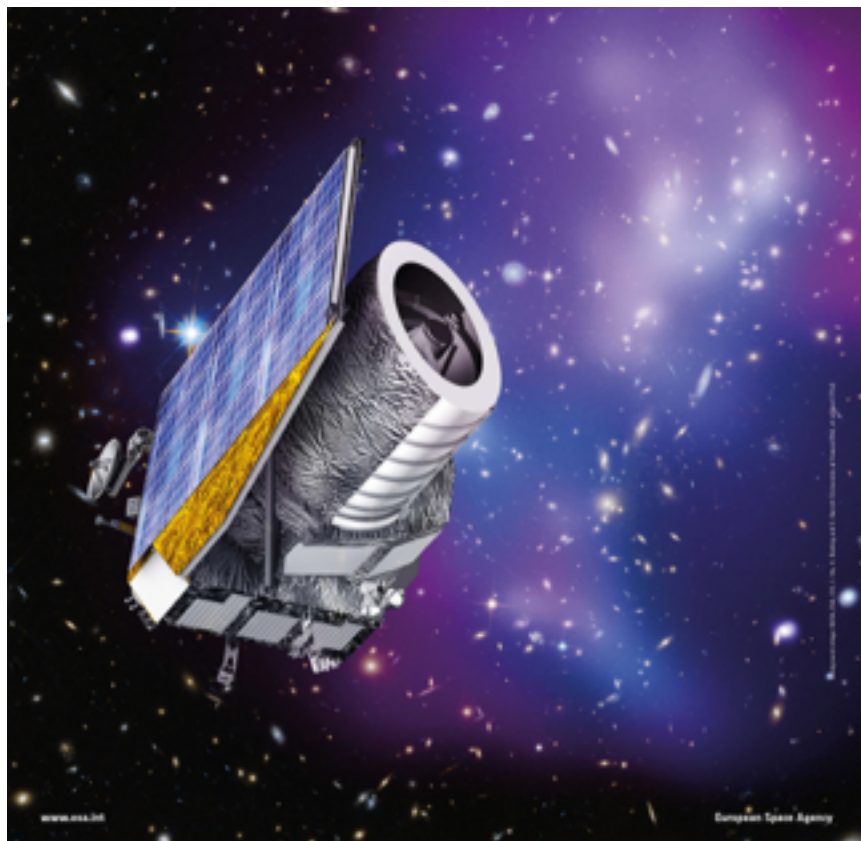
Galaxy-Galaxy-Galaxy Lensing



Missions-
vorbereitung



- 1.2m ESA-Weltraumteleskop für optische und nahinfrarote Aufnahmen
- Missionsdauer 2020 + 6 Jahre (L2)
- Konsortium mit ~1300 Wissenschaftlern
- 15.000 Quadratgrad Himmel mit 10 Mrd Galaxien; insgesamt 1 Mrd für Lensing
- ein Ziel: Erforschung der Natur der Dunklen Energie





Peter Schneider

Fragen oder Interesse an einem Thema für eine Bachelorarbeit oder Masterarbeit?

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