

Klimaneutrale Quartiere

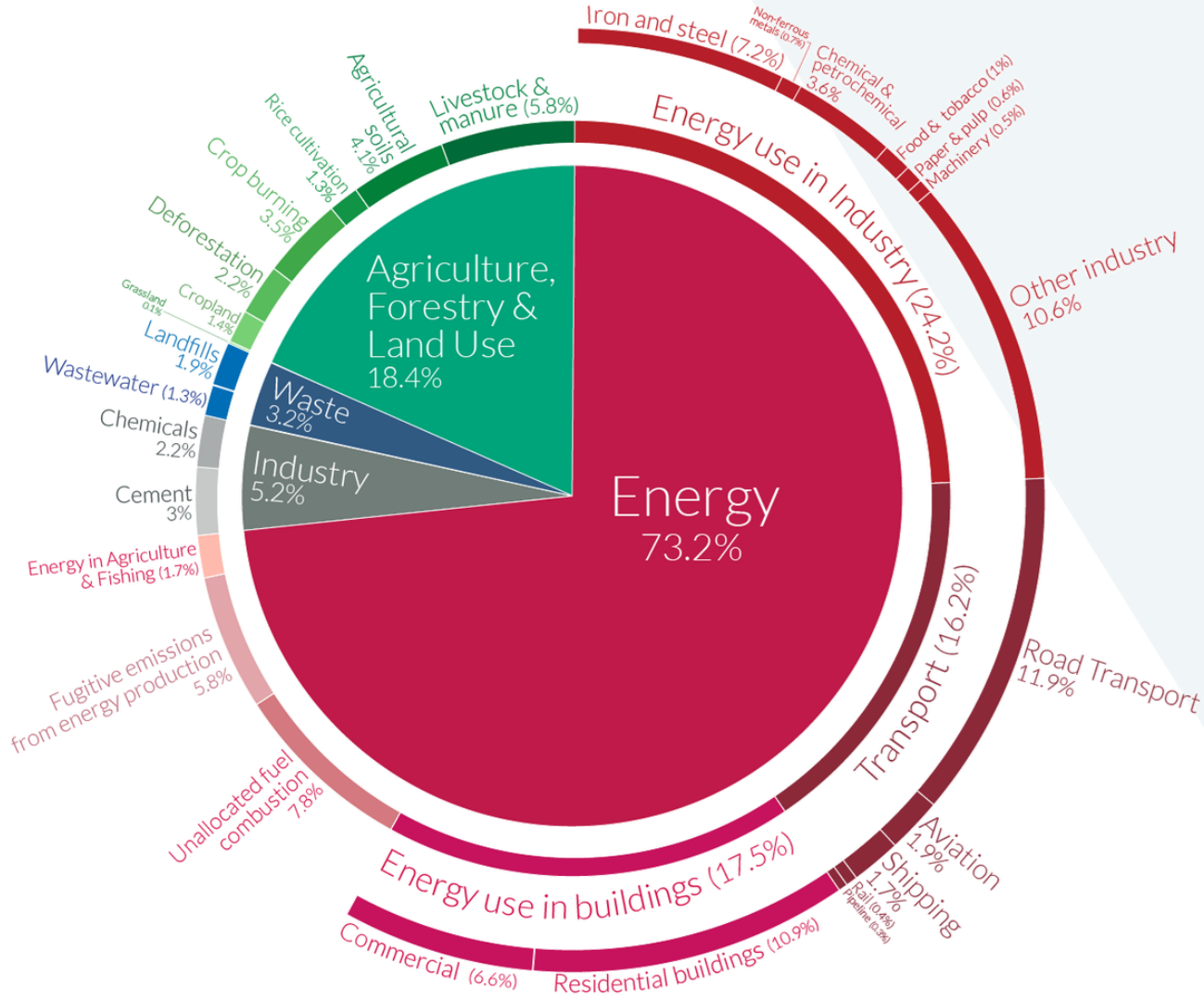
Anforderungen an FTI- & Demonstrationsprojekte

Volker Schaffler

Global greenhouse gas emissions by sector

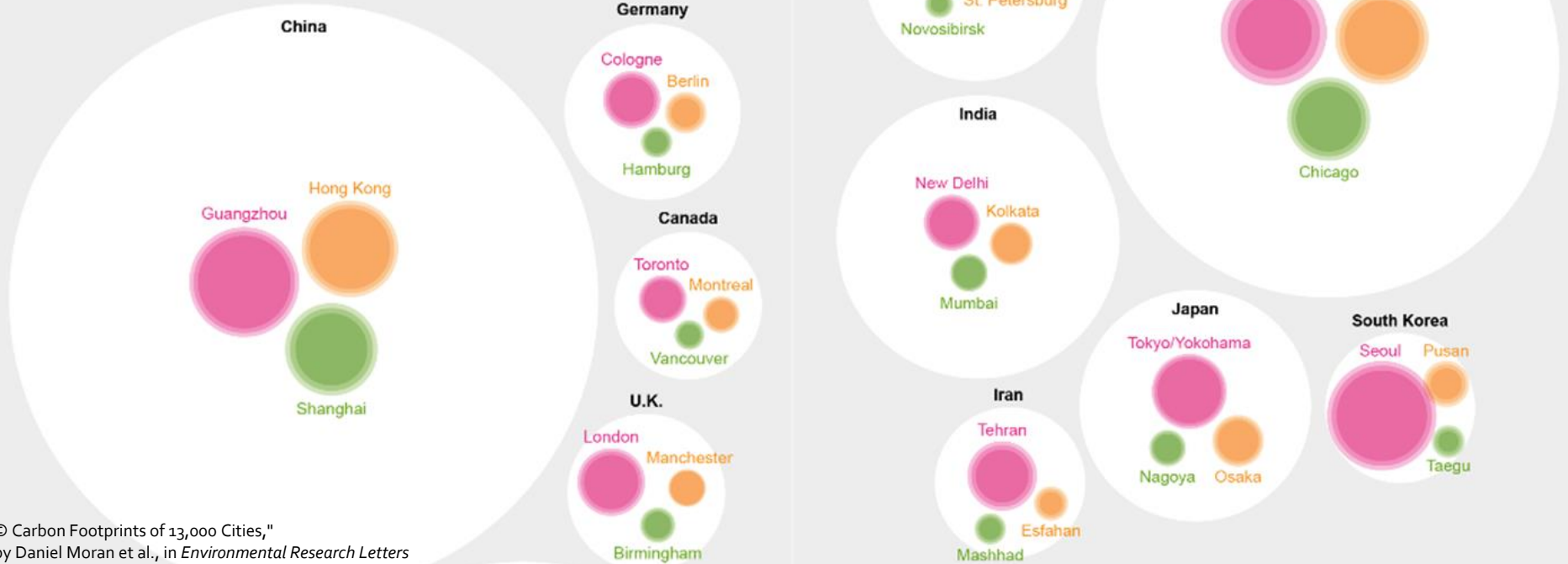
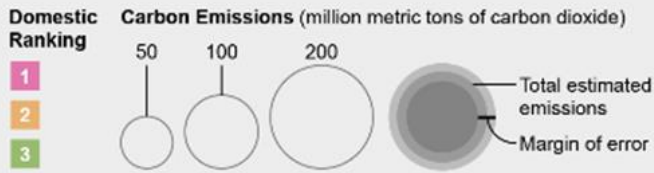
This is shown for the year 2016 – global greenhouse gas emissions were 49.4 billion tonnes CO₂eq.

Our World
in Data



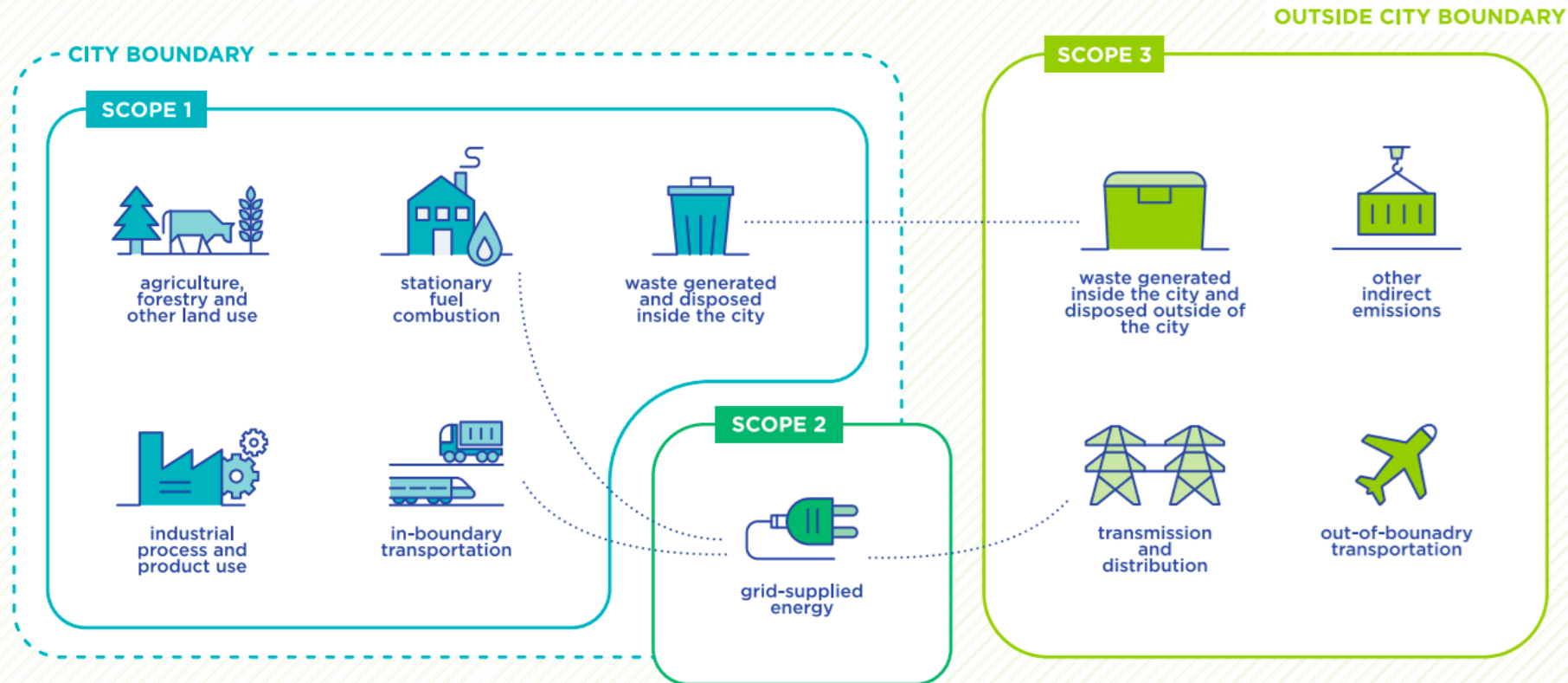
Cities and their Carbon emissions

The 10 countries with the largest carbon footprints are shown, along with the three urban clusters that contribute the most carbon emissions to each national total.

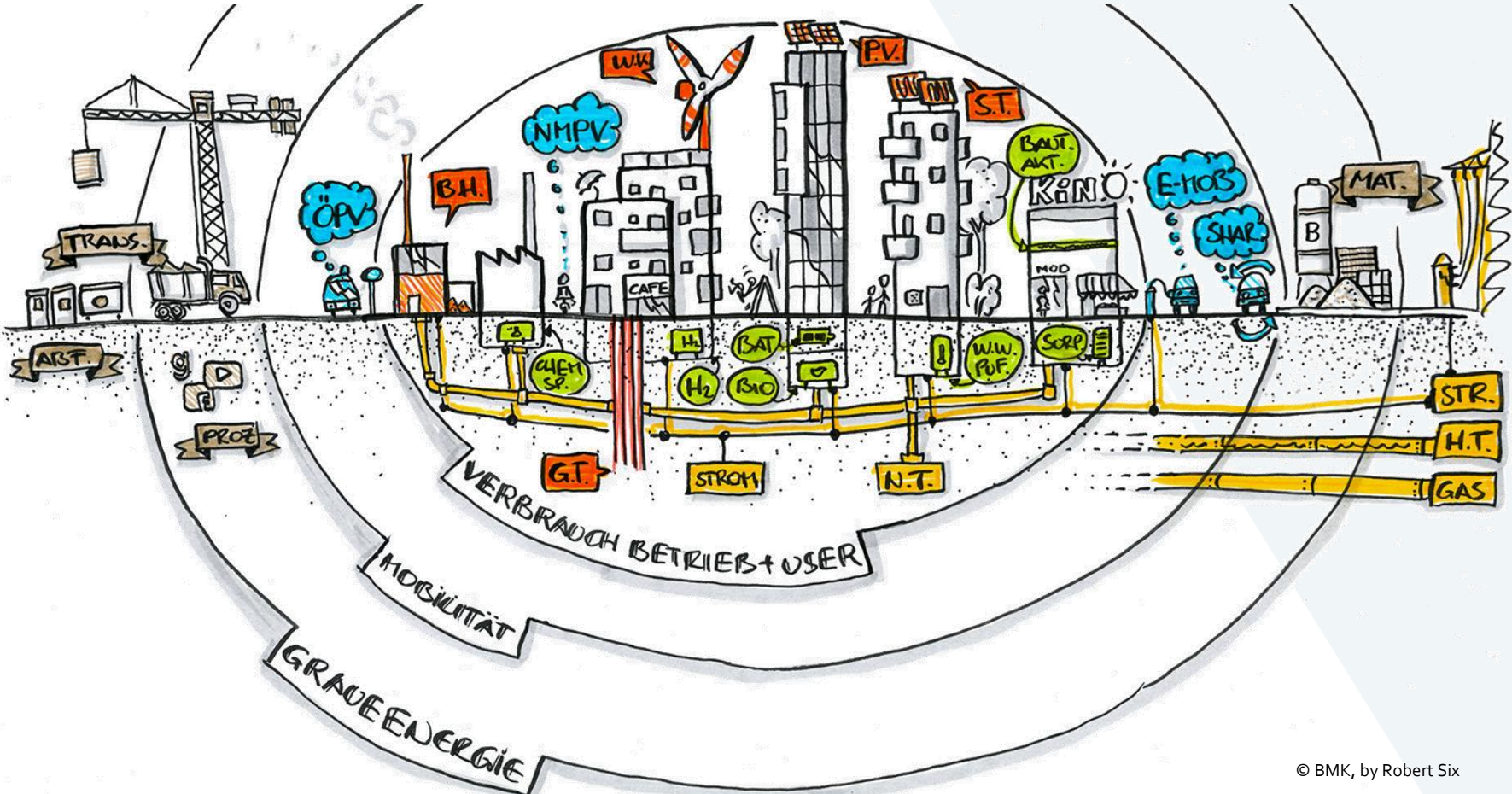


© Carbon Footprints of 13,000 Cities," by Daniel Moran et al., in *Environmental Research Letters*

Sources and boundaries of city GHG emissions



Stadt der Zukunft – Plus-Energie-Quartiere



Schweiz – Plusenergie-Quartier

Energiebedarf

Strom

- Beleuchtung ⊖
- Allg. Gebäudetechnik ⊖
- Geräte ⊖
- Quartierbedarf ⊖

Warmwasser

- Boiler ⊖

Raumklima

- Heizwärme ⊖
- Lüftung ⊖
- Kälte/Klima ⊖

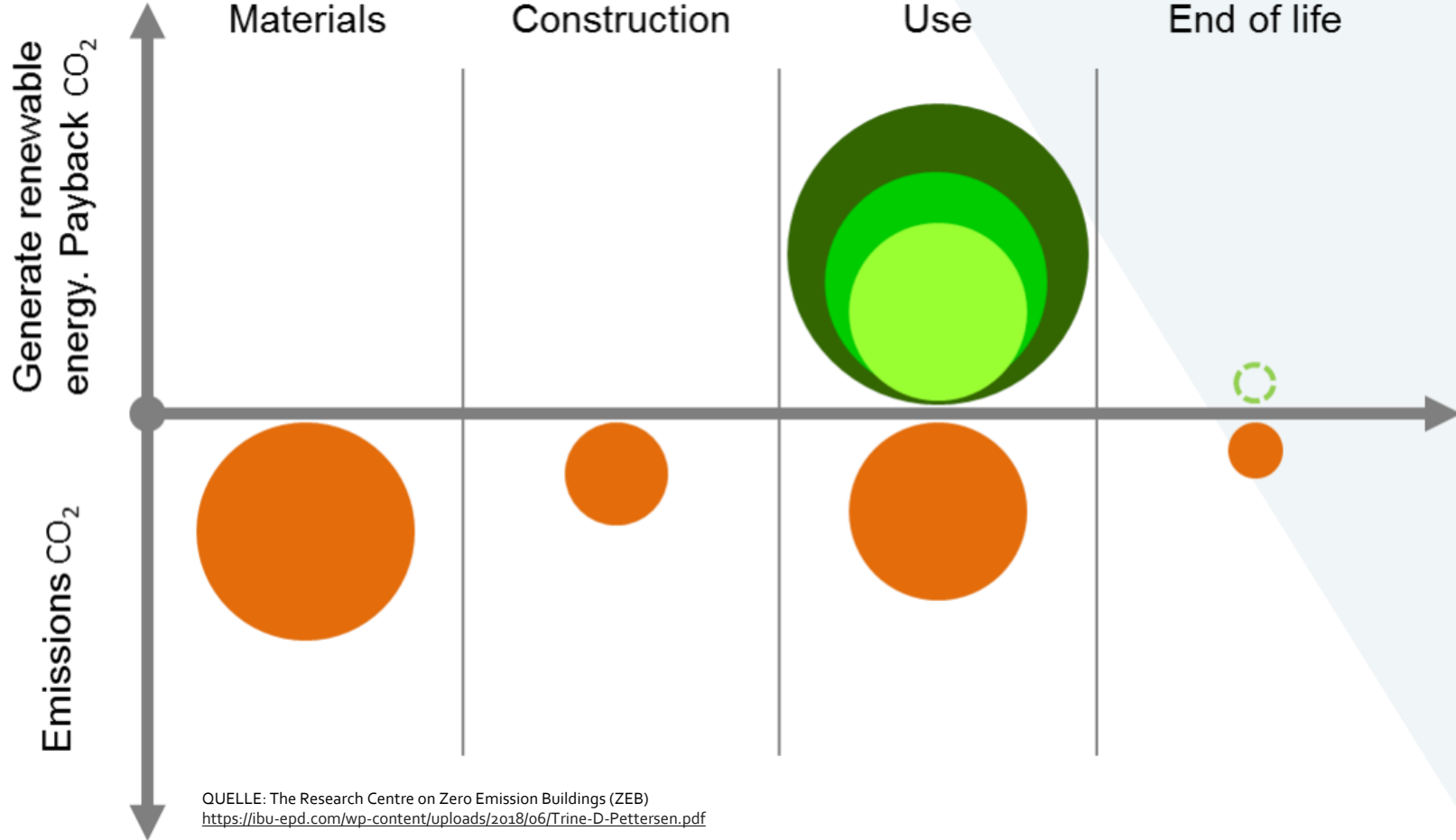


Energieproduktion

Strom- und Wärme

- ⊕ Photovoltaik
- ⊕ Solarthermie
- ⊕ Wasserkraft
- ⊕ Windenergie
- ⊕ Biomasse

Norwegen – Zero Emission Buildings (ZEB) / Powerhouse



QUELLE: The Research Centre on Zero Emission Buildings (ZEB)
<https://ibu-epd.com/wp-content/uploads/2018/06/Trine-D-Pettersen.pdf>

Vielen Dank!