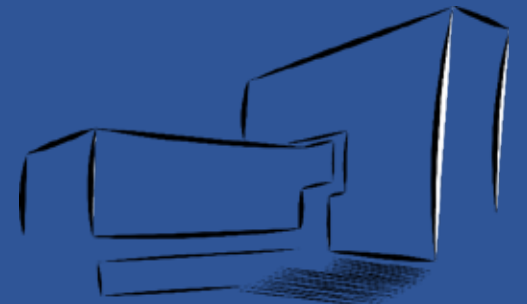


TeraNova



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About Us



Mohammad Ramezani
Applied Physics



Jaime Gómez Rivas
Applied Physics



Marion Matters-Kammerer
Electrical Engineering

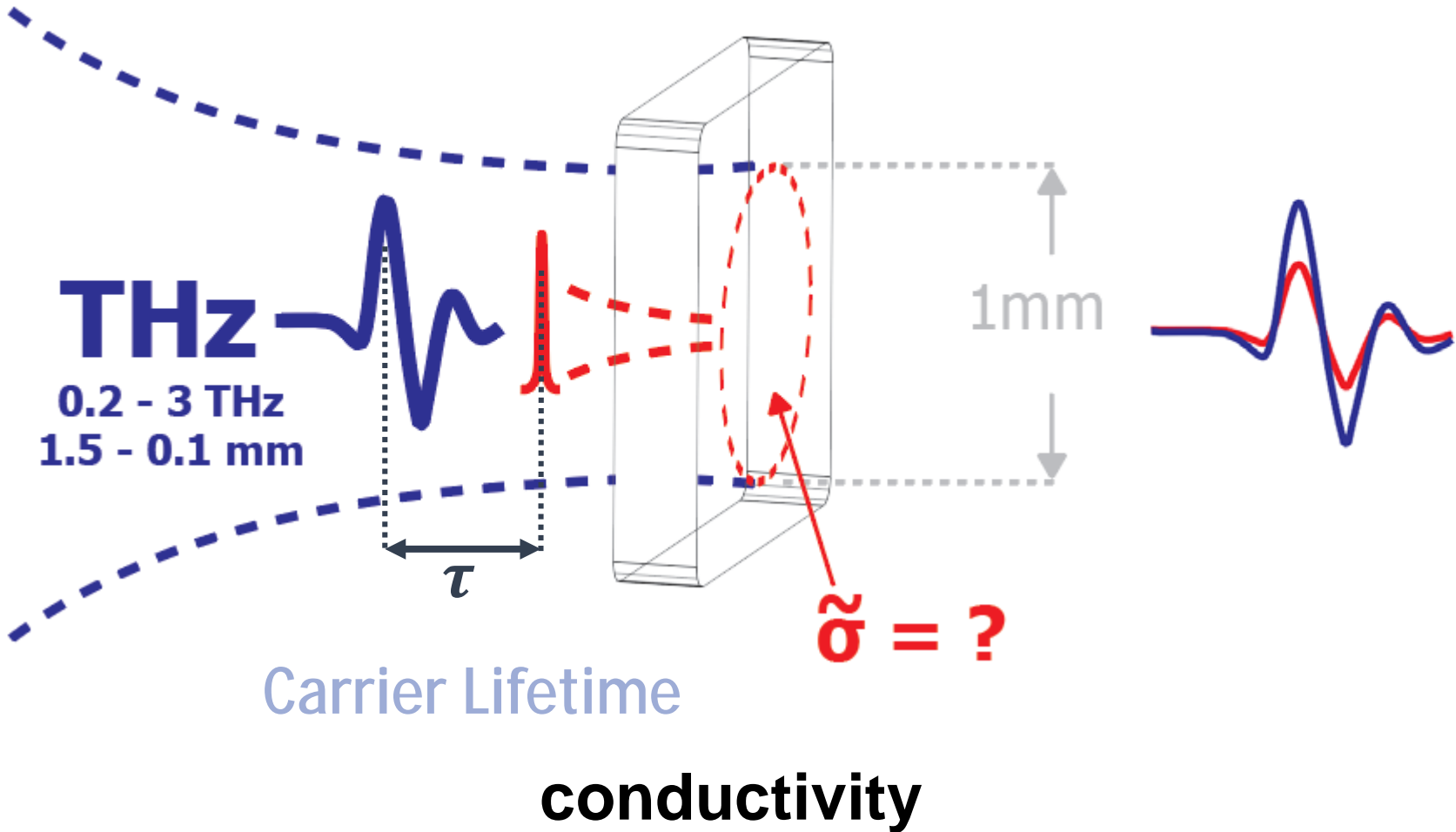


Corné van Puijenbroek
Electrical Engineering

Our business model

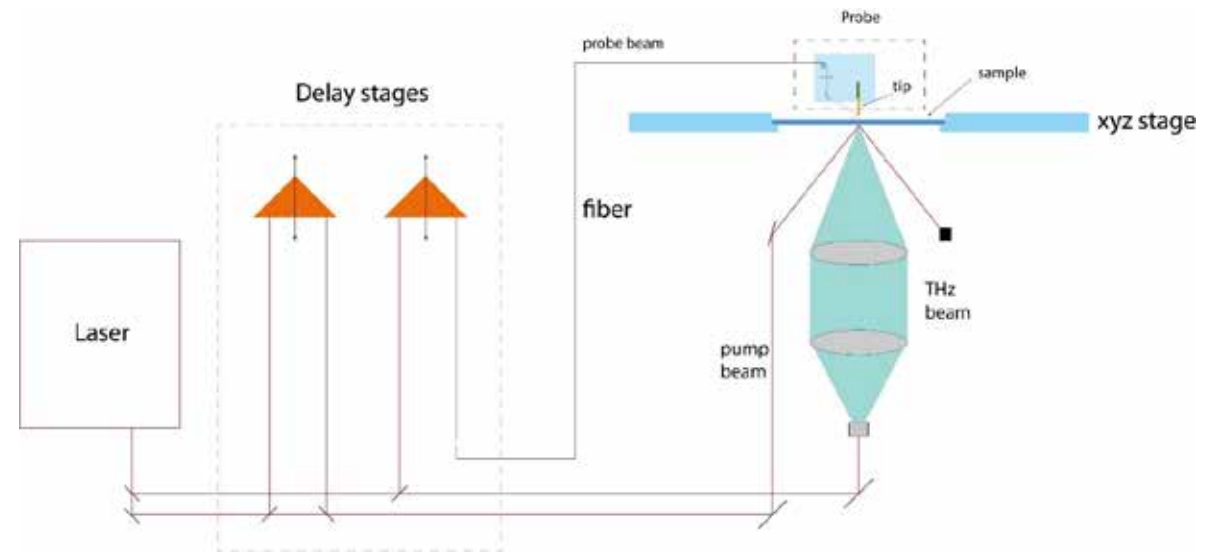
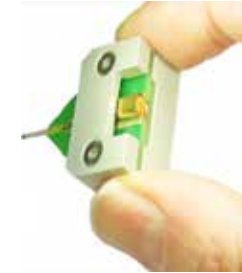
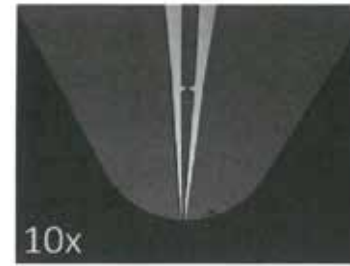
- ü Development of new THz techniques for large-area and contact-free mapping of material properties relevant to the semiconductor industry.
 - High-resolution time-resolved THz near-field microscope
- ü Terahertz measurement services to industry (complex permittivity, photo-conductivity, doping carriers life-times, etc. in the range of 50 GHz to 4 THz)

Our Expertise: THz-TDS



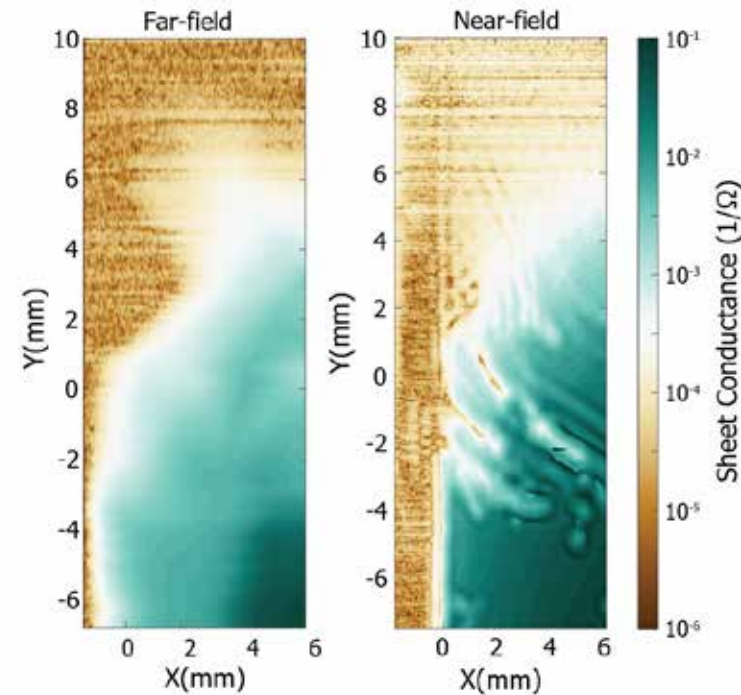
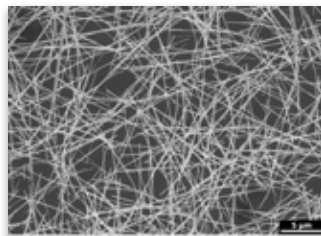
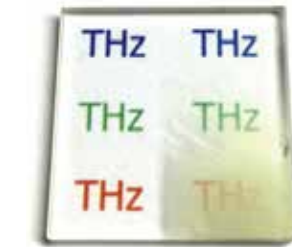
THz pump-probe microscopy

- Mapping out material properties with high spatial resolution (<100



Example 1: sheet conductance of transparent electrodes

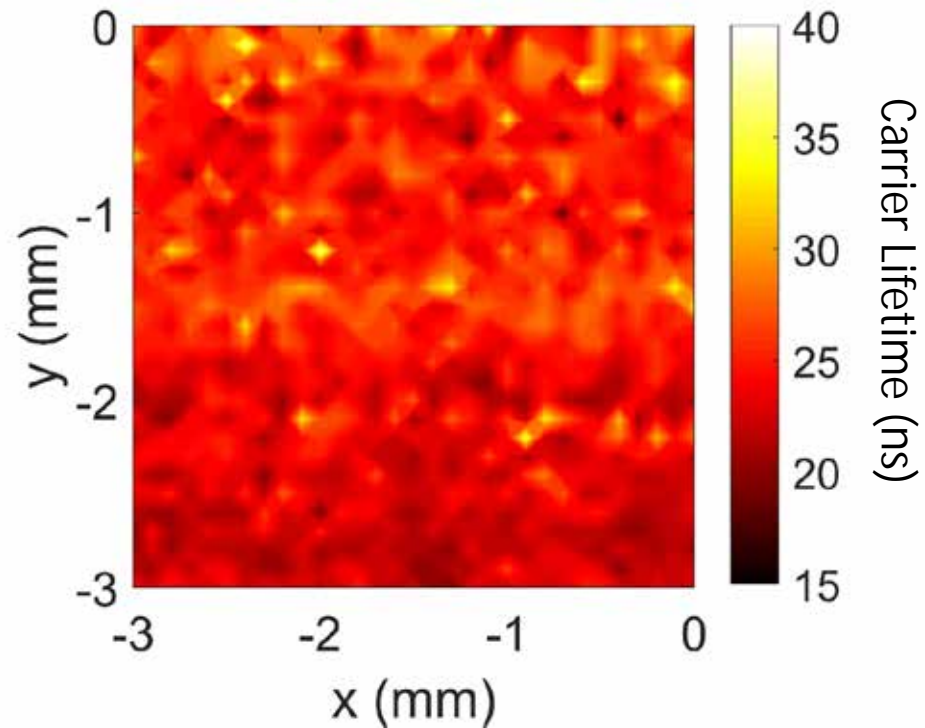
Silver nanowires network



Also possible for:

- Transparent oxides
- Graphene and 2D semiconductors
- Nanowire networks

Example 2: InGaAs on InP (epitaxially grown semiconductors)



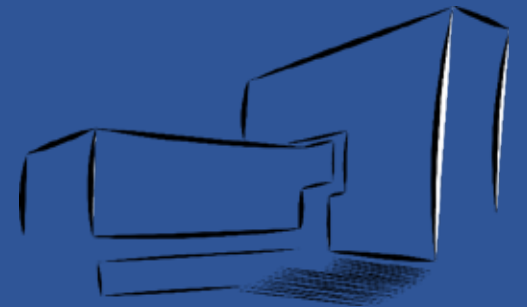
- Interesting for:
- Photovoltaics
 - IPCs
 - LEDs



Thank you

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Our Expertise: THz pump-probe

- Generation of photo-carriers using fs pulses
- Extract information such as:
 - 1) Conductivity
 - 2) Carrier mobility
 - 3) Carrier concentration
 - 4) Carrier lifetime

