



# Phase noise in oscillator hard-ware and its impact on communication systems

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- 08:30 – 08:45** Coffee
- 08:45** Welcome
- 08:50** Presentation of GHz Centre  
“Jan Grahn”
- 08:55** Introduction of workshop format and rules
- 09:00 – 09:35** Thomas Eriksson (Chalmers Univ, Sweden):  
“Phase Noise in Communications Systems”
- 9:35 – 10:10** Dan Kuylenstierna (Chalmers Univ, Sweden)  
“Hard-ware bounds on phase noise”
- 10:10 – 10:30** Coffee break
- 10:30 – 10:50** Chalmers Ph.D. student presentation  
Thi Ngoc Thanh: “Low frequency noise measurements of GaN HEMT devices”
- 10:50 – 11:50** Jean-Guy Tartarin (LAAS):  
“Low Frequency noise in GaN devices: from low noise oscillator design to reliability studies”  
“System design based on GaN HEMT technology”
- 12:00 – 13:00** Lunch
- 13:00 – 13:50** Panel discussion  
“What phase noise challenges do we have today?”  
“What phase noise challenges do we foresee in future systems?”  
“Can we expect oscillator hard-ware to meet system requirements?”
- 13:50 – 14:20** Thomas Lindgren (Ruag Space AB, Sweden):  
“Phase Noise in Satellite Based Systems”
- 14:20 – 14:40** Thomas Emanuelsson (Ericsson, Sweden):  
“Phase Noise in MINI-LINK Microwave Radio system”

- 14:40 – 15:00** Björn Gävert (Ericsson, Sweden):  
“MINI-LINK phase noise tracking”
- 15:00 – 15:30** Coffee break
- 15:30 – 15:50** Johan Hellen (Saab EDS, Sweden):  
“Low phase noise oscillators for Radar applications”
- 15:50 – 16:40** Chalmers Ph.D. student presentations:  
Szhau Lai: “Accurate phase noise predictions”  
Mikael Hörberg: “Cavity-based GaN HEMT oscillators”  
Mohammed Reza Khanzadi: “Calculation of the Performance of Communication Systems from Measured Oscillator Phase Noise”
- 16:40 – 17:00** Buffer time
- 17:00** Closing