



# DGT-QT21 Workshop

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- Workshop
  - Topic presentation (to the point)
  - Discussion / Sharing

- Operations and Scalability
  - multithreading vs single threading ?
  - Sharing modules between NMT and PBSMT ?
    - architecture ?

- Domain adaptation:
  - Combining generic models with domain models?
  - Use of comparable data for domain-adapted MT?
  - Domain adaptation for NMT?

- Low resources
  - How can multi-source NMT be trained?
  - How to obtain  $N*(N-1)$  translation directions with  $O(N)$  effort?
  - How can the main advantages of NMT and SMT be combined
  - How can we detect and manage inaccuracies in NMT?

- Morphology
  - BPE and explicit word morphology knowledge?
  - Where are the limits?
  - Using rule-based morphological pre- and post-processing ?

- **9:00 – 10:00 DGT Intro** (Andreas Eisele)
  - General Presentation of MT@EC (30 min)
  - Bottle necks / list of questions to research (30 min)
- **10:00 – 11:00 Operations and Scalability** of PBSMT (Barry, Marcin, Rico, Raivis)
  - Architecture of MT@EC (Andreas)
  - Multi-threading in Moses (Marcin)
  - **Tilde's** Experience (Raivis)
  - Discussion (30 min)
- **11:00 – 11:15 Coffee Break**

- **11:15 – 12:15 Operations and Scalability of NMT** (Barry, Marcin, Rico, Raivis)
  - Training with Nematus on large data volumes (Barry, Rico)
  - Decoding optimisation (Marcin)
  - typical NMT issues in real application – translation of numbers and URLs, single word translations, rare word translations (Raivis)
  - **Hybrid** NMT – PBMT (Raivis)
  - Discussion (30 min)
- **12:15 – 13:15 Lunch**



- **13:15 – 14:15 Domain Adaptation / APE**
  - Domain Adaptation (Cristina)
  - APE (Matteo)
  - Online APE (Matteo)
  - Discussion (30 min)
  
- **14:15 – 15:00 Dealing with low resources (Jan)**
  - multi-lingual MT (Jan)
  - Pre-translation (Jan)
  - Discussion (30 min)
  
- **15:00 – 15:15 Coffee Break**

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- **15:15 – 16:45 Morphology**
    - BPE (Barry, Rico)
    - Character based NMT (Jon)
    - Finite State morphology (Raivis)
    - Discussion (60 min)
  
  - **16:45 – 17:00 Wrap up**