WMT 2021

Sixth Conference on Machine Translation

Proceedings of the Conference

November 10-11, 2021

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Preface

The Sixth Conference on Machine Translation (WMT 2021) took place on Wednesday, November 10 and Thursday, November 11, 2021 immediately following the 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP 2021).

This is the sixth time WMT has been held as a conference. The first time WMT was held as a conference was at ACL 2016 in Berlin, Germany, the second time at EMNLP 2017 in Copenhagen, Denmark, the third time at EMNLP 2018 in Brussels, Belgium, the fourth time at ACL 2019 in Florence, Italy, and the fifth time at EMNLP-2020, which was held as an online event due to the COVID-19 pandemic. Prior to being a conference, WMT was held 10 times as a workshop. WMT was held for the first time at HLT-NAACL 2006 in New York City, USA. In the following years the Workshop on Statistical Machine Translation was held at ACL 2007 in Prague, Czech Republic, ACL 2008, Columbus, Ohio, USA, EACL 2009 in Athens, Greece, ACL 2010 in Uppsala, Sweden, EMNLP 2011 in Edinburgh, Scotland, NAACL 2012 in Montreal, Canada, ACL 2013 in Sofia, Bulgaria, ACL 2014 in Baltimore, USA, EMNLP 2015 in Lisbon, Portugal.

The focus of our conference is to bring together researchers from the area of machine translation and invite selected research papers to be presented at the conference.

Prior to the conference, in addition to soliciting relevant papers for review and possible presentation, we conducted 13 shared tasks. These consisted of 10 translation tasks: Machine Translation of News, Similar Language Translation, Biomedical Translation, Multilingual Low-Resource Translation for Indo-European Languages, Large-Scale Multilingual Machine Translation, Triangular MT: Using English to Improve Russian-to-Chinese Machine Translation, Translation Efficiency, Machine Translation using Terminologies, Unsupervised and Very Low Resource Supervised Translation, and Lifelong Learning for Machine Translation, two evaluation tasks: Quality Estimation of Translation and Metrics for Machine Translation, and the Automatic Post-Editing task.

The results of all shared tasks were announced at the conference, and these proceedings also include overview papers for the shared tasks, summarizing the results, as well as providing information about the data used and any procedures that were followed in conducting or scoring the tasks. In addition, there are short papers from each participating team that describe their underlying system in greater detail.

Like in previous years, we have received a far larger number of submissions than we could accept for presentation. WMT 2021 has received 49 full research paper submissions (not counting withdrawn submissions). In total, WMT 2021 featured 18 full research paper presentations and 96 shared task presentations.

The event hosted a panel discussion led by Markus Freitag (Google) on evaluation with Nitika Mathur (Univ. Melbourne), Benjamin Marie (NICT), Ricardo Rei (Unbabel), Tom Kocmi (Microsoft).

We would like to thank the members of the Program Committee for their timely reviews. We also would like to thank the participants of the shared task and all the other volunteers who helped with the evaluations.

Loïc Barrault, Ondřej Bojar, Fethi Bougares, Rajen Chatterjee, Marta R. Costa-jussà, Christian Federmann, Mark Fishel, Alexander Fraser, Markus Freitag, Yvette Graham, Roman Grundkiewicz, Paco Guzman, Barry Haddow, Matthias Huck, Antonio Jimeno Yepes, Philipp Koehn, Tom Kocmi, André Martins, Makoto Morishita, Christof Monz, Masaaki Nagata, Toshiaki Nakazawa, Matteo Negri, Aurélie Névéol, Mariana Neves, Martin Popel, Matt Post, Marco Turchi, and Marcos Zampieri

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Contrastive Learning for Context-aware Neural Machine Translation Using Coreference Information
Yongkeun Hwang, Hyeongu Yun and Kyomin Jung 1135

Conference Program

Wednesday, November 10, 2021

9:00–9:10 ***Opening Remarks***

9:10–10:15 Session 1: Shared Task Overview Papers I (Session Chair: Philipp Koehn)

9:10–10:15 *Findings of the 2021 Conference on Machine Translation (WMT21)*
Farhad Akhbardeh, Arkady Arkhangorodsky, Magdalena Biesialska, Ondřej Bojar, Rajen Chatterjee, Vishrav Chaudhary, Marta R. Costa-jussa, Cristina España-Bonet, Angela Fan, Christian Federmann, Markus Freitag, Yvette Graham, Roman Grundkiewicz, Barry Haddow, Leonie Harter, Kenneth Heafield, Christopher Homan, Matthias Huck, Kwabena Amponsah-Kaakyire, Jungo Kasai, Daniel Khashabi, Kevin Knight, Tom Kocmi, Philipp Koehn, Nicholas Lourie, Christof Monz, Makoto Morishita, Masaaki Nagata, Ajay Nagesh, Toshiaki Nakazawa, Matteo Negri, Santanu Pal, Allahsera Auguste Tapo, Marco Turchi, Valentin Vydrin and Marcos Zampieri

9:00–9:25 ***News Translation Task***

9:25–9:35 ***Similar Languages Translation Task***

9:35–9:45 ***Automatic Postediting Task***

9:45–9:55 ***Triangular Translation Task***

9:55–10:05 ***Indo-European Multilingual Translation Task***

10:05–10:15 *Findings of the WMT 2021 Shared Task on Large-Scale Multilingual Machine Translation*
Guillaume Wenzek, Vishrav Chaudhary, Angela Fan, Sahir Gomez, Naman Goyal, Somya Jain, Douwe Kiela, Tristan Thrush and Francisco Guzmán

10:15–10:30 ***Coffee Break***

Wednesday, November 10, 2021 (continued)

10:30–12:00 News Translation Task

10:30–12:00 *GTCOM Neural Machine Translation Systems for WMT21*
Chao Bei and Hao Zong

10:30–12:00 *The University of Edinburgh's English-German and English-Hausa Submissions to the WMT21 News Translation Task*
Pinzhen Chen, Jindřich Helcl, Ulrich Germann, Laurie Burchell, Nikolay Bogoychev, Antonio Valerio Miceli Barone, Jonas Waldendorf, Alexandra Birch and Kenneth Heafield

10:30–12:00 *Tune in: The AFRL WMT21 News-Translation Systems*
Grant Erdmann, Jeremy Gwinnup and Tim Anderson

10:30–12:00 *The TALP-UPC Participation in WMT21 News Translation Task: an mBART-based NMT Approach*
Carlos Escolano, Ioannis Tsiamas, Christine Basta, Javier Ferrando, Marta R. Costa-jussa and José A. R. Fonollosa

10:30–12:00 *CUNI Systems in WMT21: Revisiting Backtranslation Techniques for English-Czech NMT*
Petr Gebauer, Ondřej Bojar, Vojtěch Švandelík and Martin Popel

10:30–12:00 *Ensembling of Distilled Models from Multi-task Teachers for Constrained Resource Language Pairs*
Amr Hendy, Esraa A. Gad, Mohamed Abdelghaffar, Jailan S. ElMosalami, Mohamed Afify, Ahmed Y. Tawfik and Hany Hassan Awadalla

10:30–12:00 *Miðeind's WMT 2021 Submission*
Haukur Barri Símonarson, Vésteinn Snæbjarnarson, Pétur Orri Ragnarson, Haukur Jónsson and Vilhjalmur Thorsteinsson

10:30–12:00 *Allegro.eu Submission to WMT21 News Translation Task*
Mikołaj Koszowski, Karol Grzegorczyk and Tsimur Hadeliya

10:30–12:00 *Illinois Japanese ↔ English News Translation for WMT 2021*
Giang Le, Shinka Mori and Lane Schwartz

10:30–12:00 *MiSS@WMT21: Contrastive Learning-reinforced Domain Adaptation in Neural Machine Translation*
Zuchao Li, Masao Utiyama, Eiichiro Sumita and Hai Zhao

10:30–12:00 *The Fujitsu DMATH Submissions for WMT21 News Translation and Biomedical Translation Tasks*
Ander Martinez

Wednesday, November 10, 2021 (continued)

10:30–12:00 *Adam Mickiewicz University's English-Hausa Submissions to the WMT 2021 News Translation Task*
Artur Nowakowski and Tomasz Dwojak

10:30–12:00 *eTranslation's Submissions to the WMT 2021 News Translation Task*
Csaba Oravecz, Katina Bontcheva, David Kolovratník, Bhavani Bhaskar, Michael Jellinghaus and Andreas Eisele

10:30–12:00 *The University of Edinburgh's Bengali-Hindi Submissions to the WMT21 News Translation Task*
Proyag Pal, Alham Fikri Aji, Pinzhen Chen and Sukanta Sen

10:30–12:00 *The Volctrans GLAT System: Non-autoregressive Translation Meets WMT21*
Lihua Qian, Yi Zhou, Zaixiang Zheng, Yaoming ZHU, Zehui Lin, Jiangtao Feng, Shanbo Cheng, Lei Li, Mingxuan Wang and Hao Zhou

10:30–12:00 *NVIDIA NeMo's Neural Machine Translation Systems for English-German and English-Russian News and Biomedical Tasks at WMT21*
Sandeep Subramanian, Oleksii Hrinchuk, Virginia Adams and Oleksii Kuchaiev

10:30–12:00 *Facebook AI's WMT21 News Translation Task Submission*
Chau Tran, Shruti Bhosale, James Cross, Philipp Koehn, Sergey Edunov and Angela Fan

10:30–12:00 *Tencent Translation System for the WMT21 News Translation Task*
Longyue Wang, Mu Li, Fangxu Liu, Shuming Shi, Zhaopeng Tu, Xing Wang, Shuangzhi Wu, Jiali Zeng and Wen Zhang

10:30–12:00 *HW-TSC's Participation in the WMT 2021 News Translation Shared Task*
Daimeng Wei, Zongyao Li, Zhanglin Wu, Zhengzhe Yu, Xiaoyu Chen, Hengchao Shang, Jiaxin Guo, Minghan Wang, Lizhi Lei, Min Zhang, Hao Yang and Ying Qin

10:30–12:00 *LISN @ WMT 2021*
Jitao Xu, Minh Quang Pham, Sadaf Abdul Rauf and François Yvon

10:30–12:00 *WeChat Neural Machine Translation Systems for WMT21*
Xianfeng Zeng, Yijin Liu, Ernan Li, Qiu Ran, Fandong Meng, Peng Li, Jinan Xu and Jie Zhou

10:30–12:00 *Small Model and In-Domain Data Are All You Need*
Hui Zeng

10:30–12:00 *The Mininglamp Machine Translation System for WMT21*
Shiyu Zhao, Xiaopu Li, Minghui Wu and Jie Hao

Wednesday, November 10, 2021 (continued)

10:30–12:00 *The NiuTrans Machine Translation Systems for WMT21*
Shuhan Zhou, Tao Zhou, Binghao Wei, Yingfeng Luo, Yongyu Mu, Zefan Zhou, Chenglong Wang, Xuanjun Zhou, Chuanhao Lv, Yi Jing, Laohu Wang, Jingnan Zhang, Canan Huang, Zhongxiang Yan, Chi Hu, Bei Li, Tong Xiao and Jingbo Zhu

10:30–12:00 Similar Languages Translation Task

10:30–12:00 *Improving Similar Language Translation With Transfer Learning*
Ife Adebara and Muhammad Abdul-Mageed

10:30–12:00 *T4T Solution: WMT21 Similar Language Task for the Spanish-Catalan and Spanish-Portuguese Language Pair*
Miguel Canals and Marc Raventós Tato

10:30–12:00 *Neural Machine Translation for Tamil–Telugu Pair*
Sahinur Rahman Laskar, Bishwaraj Paul, Prottay Kumar Adhikary, Partha Pakray and Sivaji Bandyopadhyay

10:30–12:00 *Low Resource Similar Language Neural Machine Translation for Tamil-Telugu*
Vandan Mujadia and Dipti Sharma

10:30–12:00 *Similar Language Translation for Catalan, Portuguese and Spanish Using Marian NMT*
Reinhard Rapp

10:30–12:00 *NITK-UoH: Tamil-Telugu Machine Translation Systems for the WMT21 Similar Language Translation Task*
Richard Saldanha, Ananthanarayana V. S, Anand Kumar M and Parameswari Krishnamurthy

10:30–12:00 *A3-108 Machine Translation System for Similar Language Translation Shared Task 2021*
Saumitra Yadav and Manish Shrivastava

Wednesday, November 10, 2021 (continued)

10:30–12:00 Automatic Post-Editing Task

10:30–12:00 *Netmarble AI Center's WMT21 Automatic Post-Editing Shared Task Submission*
Shinhyeok Oh, Sion Jang, Hu Xu, Shounan An and Insoo Oh

10:30–12:00 *Adapting Neural Machine Translation for Automatic Post-Editing*
Abhishek Sharma, Prabhakar Gupta and Anil Nelakanti

10:30–12:00 Triangular Translation Task

10:30–12:00 *ISTIC's Triangular Machine Translation System for WMT2021*
Hangcheng Guo, Wenbin Liu, Yanqing He, Tian Lan, Hongjiao Xu, Zhenfeng Wu and You Pan

10:30–12:00 *HW-TSC's Participation in the WMT 2021 Triangular MT Shared Task*
Zongyao Li, Daimeng Wei, Hengchao Shang, Xiaoyu Chen, Zhanglin Wu, Zhengzhe Yu, Jiaxin Guo, Minghan Wang, Lizhi Lei, Min Zhang, Hao Yang and Ying Qin

10:30–12:00 *DUTNLP Machine Translation System for WMT21 Triangular Translation Task*
Huan Liu, Junpeng Liu, Kaiyu Huang and Degen Huang

10:30–12:00 *Pivot Based Transfer Learning for Neural Machine Translation: CFILT IITB @ WMT 2021 Triangular MT*
Shivam Mhaskar and Pushpak Bhattacharyya

10:30–12:00 *Papago's Submissions to the WMT21 Triangular Translation Task*
Jeonghyeok Park, Hyunjoong Kim and Hyunchang Cho

10:30–12:00 Indo-European Multilingual Translation Task

10:30–12:00 *Machine Translation of Low-Resource Indo-European Languages*
Wei-Rui Chen and Muhammad Abdul-Mageed

10:30–12:00 *CUNI systems for WMT21: Multilingual Low-Resource Translation for Indo-European Languages Shared Task*
Josef Jon, Michal Novák, João Paulo Aires, Dusan Varis and Ondřej Bojar

10:30–12:00 *Transfer Learning with Shallow Decoders: BSC at WMT2021's Multilingual Low-Resource Translation for Indo-European Languages Shared Task*
Ksenia Kharitonova, Ona de Gibert Bonet, Jordi Armengol-Estapé, Mar Rodriguez i Alvarez and Maite Melero

10:30–12:00 *EdinSaar@WMT21: North-Germanic Low-Resource Multilingual NMT*
Svetlana Tchistiakova, Jesujoba Alabi, Koel Dutta Chowdhury, Sourav Dutta and Dana Ruiter

10:30–12:00 *TenTrans Multilingual Low-Resource Translation System for WMT21 Indo-European Languages Task*
Han Yang, Bojie Hu, Wanying Xie, ambyera han, Pan Liu, Jinan Xu and Qi Ju

10:30–12:00 Large-Scale Multilingual Translation Task

10:30–12:00 *The University of Maryland, College Park Submission to Large-Scale Multilingual Shared Task at WMT 2021*
Saptarashmi Bandyopadhyay, Tasnim Kabir, Zizhen Lian and Marine Carpuat

10:30–12:00 *To Optimize, or Not to Optimize, That Is the Question: TelU-KU Models for WMT21 Large-Scale Multilingual Machine Translation*
Sari Dewi Budiwati, Tirana Fatyanosa, Mahendra Data, Dedy Rahman Wijaya, Patrick Adolf Telnoni, Arie Ardiyanti Suryani, Agus Pratondo and Masayoshi Aritsugi

10:30–12:00 *MMTAfrica: Multilingual Machine Translation for African Languages*
Chris Chinenye Emezue and Bonaventure F. P. Dossou

10:30–12:00 *The LMU Munich System for the WMT 2021 Large-Scale Multilingual Machine Translation Shared Task*
Wen Lai, Jindřich Libovický and Alexander Fraser

10:30–12:00 *Back-translation for Large-Scale Multilingual Machine Translation*
Baohao Liao, Shahram Khadivi and Sanjika Hewavitharana

Wednesday, November 10, 2021 (continued)

10:30–12:00 *Maastricht University's Large-Scale Multilingual Machine Translation System for WMT 2021*
Danni Liu and Jan Niehues

10:30–12:00 *Data Processing Matters: SRPH-Konvergen AI's Machine Translation System for WMT'21*
Lintang Sutawika and Jan Christian Blaise Cruz

10:30–12:00 *TenTrans Large-Scale Multilingual Machine Translation System for WMT21*
Wanying Xie, Bojie Hu, Han Yang, Dong Yu and Qi Ju

10:30–12:00 *Multilingual Machine Translation Systems from Microsoft for WMT21 Shared Task*
Jian Yang, Shuming Ma, Haoyang Huang, Dongdong Zhang, Li Dong, Shaohan Huang, Alexandre Muzio, Saksham Singhal, Hany Hassan, Xia Song and Furu Wei

10:30–12:00 *HW-TSC's Participation in the WMT 2021 Large-Scale Multilingual Translation Task*
Zhengzhe Yu, Daimeng Wei, Zongyao Li, Hengchao Shang, Xiaoyu Chen, Zhanglin Wu, Jiaxin Guo, Minghan Wang, Lizhi Lei, Min Zhang, Hao Yang and Ying Qin

12:00–13:00 ***Lunch Break***

13:00–14:15 Session 3: Panel Discussion on Evaluation with Nitika Mathur (Univ. Melbourne), Benjamin Marie (NICT), Ricardo Rei (Unbabel), Tom Kocmi (Microsoft) and moderated by Markus Freitag (Google)

14:15–14:45 ***Mini Break***

14:45–16:15 Session 4: Research Papers on Evaluation (Session Chair: Antonis Anastasopoulos)

14:45–16:15 *On the Stability of System Rankings at WMT*
Rebecca Knowles

14:45–16:15 *To Ship or Not to Ship: An Extensive Evaluation of Automatic Metrics for Machine Translation*
Tom Kocmi, Christian Federmann, Roman Grundkiewicz, Marcin Junczys-Dowmunt, Hitokazu Matsushita and Arul Menezes

14:45–16:15 *Just Ask! Evaluating Machine Translation by Asking and Answering Questions*
Mateusz Krubiński, Erfan Ghadery, Marie-Francine Moens and Pavel Pecina

Wednesday, November 10, 2021 (continued)

14:45–16:15 *A Fine-Grained Analysis of BERTScore*
Michael Hanna and Ondřej Bojar

14:45–16:15 *Evaluating Multiway Multilingual NMT in the Turkic Languages*
Jamshidbek Mirzakhalov, Anoop Babu, Aigiz Kunafin, Ahsan Wahab, Bekhzodbek Moydinboyev, Sardana Ivanova, Mokhiyakhon Uzokova, Shaxnoza Pulatova, Duygu Ataman, Julia Kreutzer, Francis Tyers, Orhan Firat, John Licato and Sriram Chellappan

14:45–16:15 *Extending Challenge Sets to Uncover Gender Bias in Machine Translation: Impact of Stereotypical Verbs and Adjectives*
Jonas-Dario Troles and Ute Schmid

16:15-16:45 ***Coffee Break***

16:45–18:15 Session 5: Research Papers on Data (Session Chair: Mathias Müller)

16:45–18:15 *Continual Learning in Multilingual NMT via Language-Specific Embeddings*
Alexandre Berard

16:45–18:15 *DELA Corpus - A Document-Level Corpus Annotated with Context-Related Issues*
Sheila Castilho, João Lucas Cavalheiro Camargo, Miguel Menezes and Andy Way

16:45–18:15 *Multilingual Domain Adaptation for NMT: Decoupling Language and Domain Information with Adapters*
Asa Cooper Stickland, Alexandre Berard and Vassilina Nikoulina

16:45–18:15 *Translation Transformers Rediscover Inherent Data Domains*
Maksym Del, Elizaveta Korotkova and Mark Fishel

16:45–18:15 *Improving Machine Translation of Rare and Unseen Word Senses*
Viktor Hangya, Qianchu Liu, Dario Stojanovski, Alexander Fraser and Anna Korhonen

16:45–18:15 *Pushing the Right Buttons: Adversarial Evaluation of Quality Estimation*
Diptesh Kanojia, Marina Fomicheva, Tharindu Ranasinghe, Frédéric Blain, Constantin Orăsan and Lucia Specia

Thursday, November 11, 2021

9:00–10:15 Session 6: Shared Task Overview Papers I

9:00–9:12 *Findings of the WMT 2021 Shared Task on Efficient Translation*
Kenneth Heafield, Qianqian Zhu and Roman Grundkiewicz

9:12–9:24 *Findings of the WMT Shared Task on Machine Translation Using Terminologies*
Md Mahfuz Ibn Alam, Ivana Kvapilíková, Antonios Anastasopoulos, Laurent Besacier, Georgiana Dinu, Marcello Federico, Matthias Gallé, Kweonwoo Jung, Philipp Koehn and Vassilina Nikoulina

9:24–9:36 *Findings of the WMT 2021 Biomedical Translation Shared Task: Summaries of Animal Experiments as New Test Set*
Lana Yeganova, Dina Wiemann, Mariana Neves, Federica Vezzani, Amy Siu, Inigo Jauregi Unanue, Maite Oronoz, Nancy Mah, Aurélie Névéol, David Martinez, Rachel Bawden, Giorgio Maria Di Nunzio, Roland Roller, Philippe Thomas, Cristian Grozea, Olatz Perez-de-Viñaspre, Maika Vicente Navarro and Antonio Jimeno Yepes

9:36–9:48 *Findings of the WMT 2021 Shared Task on Quality Estimation*
Lucia Specia, Frédéric Blain, Marina Fomicheva, Chrysoula Zerva, Zhenhao Li, Vishrav Chaudhary and André F. T. Martins

9:48–10:00 *Findings of the WMT 2021 Shared Tasks in Unsupervised MT and Very Low Resource Supervised MT*
Jindřich Libovický and Alexander Fraser

10:00–10:15 *Results of the WMT21 Metrics Shared Task: Evaluating Metrics with Expert-based Human Evaluations on TED and News Domain*
Markus Freitag, Ricardo Rei, Nitika Mathur, Chi-kiu Lo, Craig Stewart, George Foster, Alon Lavie and Ondřej Bojar

10:15–10:30 ***Coffee Break***

10:30–12:00 Efficient Translation Task

10:30–12:00 *Efficient Machine Translation with Model Pruning and Quantization*
Maximiliana Behnke, Nikolay Bogoychev, Alham Fikri Aji, Kenneth Heafield, Graeme Nail, Qianqian Zhu, Svetlana Tchistiakova, Jelmer van der Linde, Pinzhen Chen, Sidharth Kashyap and Roman Grundkiewicz

10:30–12:00 *HW-TSC's Participation in the WMT 2021 Efficiency Shared Task*
Hengchao Shang, Ting Hu, Daimeng Wei, Zongyao Li, Jianfei Feng, ZhengZhe Yu, Jiaxin Guo, Shaojun Li, Lizhi Lei, ShiMin Tao, Hao Yang, Jun Yao and Ying Qin

10:30–12:00 *The NiuTrans System for the WMT 2021 Efficiency Task*
Chenglong Wang, Chi Hu, Yongyu Mu, Zhongxiang Yan, Siming Wu, Yimin Hu, Hang Cao, Bei Li, Ye Lin, Tong Xiao and Jingbo Zhu

10:30–12:00 *TenTrans High-Performance Inference Toolkit for WMT2021 Efficiency Task*
Kaixin WU, Bojie Hu and Qi Ju

10:30–12:00 Terminology Translation Task

10:30–12:00 *Lingua Custodia's Participation at the WMT 2021 Machine Translation Using Terminologies Shared Task*
Melissa Ailem, Jingshu Liu and Raheel Qader

10:30–12:00 *Kakao Enterprise's WMT21 Machine Translation Using Terminologies Task Submission*
Yunju Bak, Jimin Sun, Jay Kim, Sungwon Lyu and Changmin Lee

10:30–12:00 *The SPECTRANS System Description for the WMT21 Terminology Task*
Nicolas Ballier, Dahn Cho, Bilal Faye, Zong-You Ke, Hanna Martikainen, Mojca Pecman, Guillaume Wisniewski, Jean-Baptiste Yunès, Lichao Zhu and Maria Zimina-Poirot

10:30–12:00 *Dynamic Terminology Integration for COVID-19 and Other Emerging Domains*
Toms Bergmanis and Mārcis Pinnis

10:30–12:00 *CUNI Systems for WMT21: Terminology Translation Shared Task*
Josef Jon, Michal Novák, João Paulo Aires, Dusan Varis and Ondřej Bojar

10:30–12:00 *PROMT Systems for WMT21 Terminology Translation Task*
Alexander Molchanov, Vladislav Kovalenko and Fedor Bykov

Thursday, November 11, 2021 (continued)

10:30–12:00 *SYSTRAN @ WMT 2021: Terminology Task*
Minh Quang Pham, Josep Crego, Antoine Senellart, Dan Berrebbi and Jean Senellart

10:30–12:00 *TermMind: Alibaba's WMT21 Machine Translation Using Terminologies Task Submission*
Ke Wang, Shuqin Gu, Boxing Chen, Yu Zhao, Weihua Luo and Yuqi Zhang

10:30–12:00 Biomedical Translation Task

10:30–12:00 *FJWU Participation for the WMT21 Biomedical Translation Task*
Sumbal Naz, Sadaf Abdul Rauf and Sami Ul Haq

10:30–12:00 *High Frequent In-domain Words Segmentation and Forward Translation for the WMT21 Biomedical Task*
Bardia Rafieian and Marta Ruiz Costa Jussa

10:30–12:00 *Huawei AARC's Submissions to the WMT21 Biomedical Translation Task: Domain Adaption from a Practical Perspective*
Weixuan Wang, Wei Peng, Xupeng Meng and Qun Liu

10:30–12:00 *Tencent AI Lab Machine Translation Systems for the WMT21 Biomedical Translation Task*
Xing Wang, Zhaopeng Tu and Shuming Shi

10:30–12:00 *HW-TSC's Submissions to the WMT21 Biomedical Translation Task*
Hao Yang, Zhanglin Wu, Zhengzhe Yu, Xiaoyu Chen, Daimeng Wei, Zongyao Li, Hengchao Shang, Minghan Wang, Jiaxin Guo, Lizhi Lei, chuanfei xu, Min Zhang and Ying Qin

10:30–12:00 Quality Estimation Task

10:30–12:00 *RTM Super Learner Results at Quality Estimation Task*
Ergun Biçici

10:30–12:00 *HW-TSC's Participation at WMT 2021 Quality Estimation Shared Task*
Yimeng Chen, Chang Su, Yingtao Zhang, Yuxia Wang, Xiang Geng, Hao Yang, Shimin Tao, Guo Jiaxin, Wang Minghan, Min Zhang, Yujia Liu and Shujian Huang

10:30–12:00 *Ensemble Fine-tuned mBERT for Translation Quality Estimation*
Shaika Chowdhury, Naouel Baili and Brian Vannah

10:30–12:00 *The JHU-Microsoft Submission for WMT21 Quality Estimation Shared Task*
Shuoyang Ding, Marcin Junczys-Dowmunt, Matt Post, Christian Federmann and Philipp Koehn

10:30–12:00 *TUDa at WMT21: Sentence-Level Direct Assessment with Adapters*
Gregor Geigle, Jonas Stadtmüller, Wei Zhao, Jonas Pfeiffer and Steffen Eger

10:30–12:00 *Quality Estimation Using Dual Encoders with Transfer Learning*
Dam Heo, WonKee Lee, Baikjin Jung and Jong-Hyeok Lee

10:30–12:00 *ICL's Submission to the WMT21 Critical Error Detection Shared Task*
Genze Jiang, Zhenhao Li and Lucia Specia

10:30–12:00 *Papago's Submission for the WMT21 Quality Estimation Shared Task*
Seunghyun Lim, Hantae Kim and Hyunjoong Kim

10:30–12:00 *NICT Kyoto Submission for the WMT'21 Quality Estimation Task: Multimetric Multilingual Pretraining for Critical Error Detection*
Raphael Rubino, Atsushi Fujita and Benjamin Marie

10:30–12:00 *QEMind: Alibaba's Submission to the WMT21 Quality Estimation Shared Task*
Jiayi Wang, Ke Wang, Boxing Chen, Yu Zhao, Weihua Luo and Yuqi Zhang

10:30–12:00 *Direct Exploitation of Attention Weights for Translation Quality Estimation*
Lisa Yankovskaya and Mark Fishel

Thursday, November 11, 2021 (continued)

10:30–12:00 *IST-Unbabel 2021 Submission for the Quality Estimation Shared Task*
Chrysoula Zerva, Daan van Stigt, Ricardo Rei, Ana C Farinha, Pedro Ramos, José G. C. de Souza, Taisiya Glushkova, miguel vera, Fabio Kepler and André F. T. Martins

10:30–12:00 Unsupervised and Very Low Resource Translation Task

10:30–12:00 *The IICT-Yverdon System for the WMT 2021 Unsupervised MT and Very Low Resource Supervised MT Task*
Àlex R. Atrio, Gabriel Luthier, Axel Fahy, Giorgos Vernikos, Andrei Popescu-Belis and Ljiljana Dolamic

10:30–12:00 *Unsupervised Translation of German–Lower Sorbian: Exploring Training and Novel Transfer Methods on a Low-Resource Language*
Lukas Edman, Ahmet Üstün, Antonio Toral and Gertjan van Noord

10:30–12:00 *The LMU Munich Systems for the WMT21 Unsupervised and Very Low-Resource Translation Task*
Jindřich Libovický and Alexander Fraser

10:30–12:00 *Language Model Pretraining and Transfer Learning for Very Low Resource Languages*
Jyotsana Khatri, Rudra Murthy and Pushpak Bhattacharyya

10:30–12:00 *NRC-CNRC Systems for Upper Sorbian-German and Lower Sorbian-German Machine Translation 2021*
Rebecca Knowles and Samuel Larkin

10:30–12:00 *NoahNMT at WMT 2021: Dual Transfer for Very Low Resource Supervised Machine Translation*
Meng Zhang, Minghao Wu, Pengfei Li, Liangyou Li and Qun Liu

Thursday, November 11, 2021 (continued)

10:30–12:00 Metrics Task

10:30–12:00 *cushLEPOR: customising hLEPOR metric using Optuna for higher agreement with human judgments or pre-trained language model LaBSE*
Lifeng Han, Irina Sorokina, Gleb Erofeev and Serge Gladkoff

10:30–12:00 *MTEQA at WMT21 Metrics Shared Task*
Mateusz Krubiński, Erfan Ghadery, Marie-Francine Moens and Pavel Pecina

10:30–12:00 *Are References Really Needed? Unbabel-IST 2021 Submission for the Metrics Shared Task*
Ricardo Rei, Ana C Farinha, Chrysoula Zerva, Daan van Stigt, Craig Stewart, Pedro Ramos, Taisiya Glushkova, André F. T. Martins and Alon Lavie

10:30–12:00 *Regressive Ensemble for Machine Translation Quality Evaluation*
Michal Stefanik, Vít Novotný and Petr Sojka

10:30–12:00 *Multilingual Machine Translation Evaluation Metrics Fine-tuned on Pseudo-Negative Examples for WMT 2021 Metrics Task*
Kosuke Takahashi, Yoichi Ishibashi, Katsuhito Sudoh and Satoshi Nakamura

10:30–12:00 *RoBLEURT Submission for WMT2021 Metrics Task*
Yu Wan, Dayiheng Liu, Baosong Yang, Tianchi Bi, Haibo Zhang, Boxing Chen, Weihua Luo, Derek F. Wong and Lidia S. Chao

10:30–12:00 Test Suites

10:30–12:00 *Linguistic Evaluation for the 2021 State-of-the-art Machine Translation Systems for German to English and English to German*
Vivien Macketanz, Eleftherios Avramidis, Shushen Manakhimova and Sebastian Möller

12:00–13:00 ***Lunch Break***

Thursday, November 11, 2021 (continued)

13:00–14:15 Session 8: Research Papers on Training and Modelling (Session Chair: Mark Fishel)

13:00–14:15 *Pruning Neural Machine Translation for Speed Using Group Lasso*
Maximiliana Behnke and Kenneth Heafield

13:00–14:15 *Phrase-level Active Learning for Neural Machine Translation*
Junjie Hu and Graham Neubig

13:00–14:15 *Learning Feature Weights using Reward Modeling for Denoising Parallel Corpora*
Gaurav Kumar, Philipp Koehn and Sanjeev Khudanpur

13:00–14:15 *Monotonic Simultaneous Translation with Chunk-wise Reordering and Refinement*
HyoJung Han, Seokchan Ahn, Yoonjung Choi, Insoo Chung, Sangha Kim and Kyunghyun Cho

13:00–14:15 *Simultaneous Neural Machine Translation with Constituent Label Prediction*
Yasumasa Kano, Katsuhito Sudoh and Satoshi Nakamura

13:00–14:15 *Contrastive Learning for Context-aware Neural Machine Translation Using Coreference Information*
Yongkeun Hwang, Hyeongu Yun and Kyomin Jung

14:15–14:45 ***Mini Break***

Thursday, November 11, 2021 (continued)

14:45–15:45 Session 9: Machine Translation Papers from the Findings of the EMNLP (Session Chair: Matt Post)

14:45–15:00 ***The Low-Resource Double Bind: An Empirical Study of Pruning for Low-Resource Machine Translation, Orevaoghene Ahia, Julia Kreutzer and Sara Hooker***

15:00–15:15 ***Subword Mapping and Anchoring across Languages, Giorgos Vernikos and Andrei Popescu-Belis***

15:15–15:30 ***Uncertainty-Aware Machine Translation Evaluation, Taisiya Glushkova, Chrysoula Zerva, Ricardo Rei and André F. T. Martins***

15:30–15:45 ***Sometimes We Want Ungrammatical Translations, Prasanna Parasarathi***