ECDMFR 2024 FREIBURG

Wednesday, June 12 – Pre-Congress			
	Runder Saal	**Konferenz 9**	**Foyer 1**
09:00–10:30		**Basics of AI in DMFR** ruben pauwels	
10:30–11:00			Coffee break
11:00–12:30		**PX & CBCT reading session** dennis rottke, dirk schulze	
12:30–13:30			Lunch break
13:30–15:00		**MRI in DMFR** rubens spin-neto, donald tyndall	
15:00–15:30			Coffee break
15:30–17:00		**How to write (and publish) a scientific paper** michael bornstein	
18:00–22:00			**Opening Ceremony & Welcome Dinner**

Thursday, June 13

	Runder Saal	Konferenz 9	Foyer 1
08:00–08:30			Coffee break
08:30–08:45	**Welcome** Chairs: EADMFR Board LOC		
08:45–09:30	Keynote 1 **The history of CBCT** Prof. Dr. Kazuya Honda, Japan (more) Chairs: dirk schulze erwin berkhout		
09:30–10:30	**Oral Presentation Session 1 (Runder Saal)** 2d-imaging • (55) association between carotid artery calcifications on panoramic radiographs, periodontitis, and signs of vascular disease in ultrasound examination (alt presenter: eva levring jäghagen) **magnus bladh** • (102) performance of a novel photon counting intraoral sensor in the assessment of caries-like lesions **saulo sousa melo** • (145) assessing the accuracy of a deep learning-based application in the diagnosis of dental caries on intraoral radiographs **viktor szabó** • (155) type and sufficiency of radiographic images before removal of mandibular third molars with a permanent neurosensory disturbance **lars bo petersen** • (165) impact of lithium therapy on jaw bone density and soft tissue calcification in bipolar disorder: a preliminary study **aykağan çukurluoğlu** Chairs: christina lindh louise hauge matzen	**Oral Presentation Session 2 (Konferenz 9)** atificial intelligence, oral & craniofacial pathology, oral & maxillofacial surgery • (263) 3d jaw bone segmentation with artificial intelligence **uğur emre karaturgut** • (262) imaging diagnosis of tumor masses in the nasal cavities in children and young adults **danisia haba** • (267) advancements in orbital defect reconstruction planning: a statistical shape model approach outperforms traditional mirroring methods **jeroen van dessel** • (249) artificial intelligence in panoramic radiography interpretation: a glimpse into the radiographic examination of the future **alican kuran** • (254) yolo-v5 based deep learning approach for tooth detection and segmentation on pediatric panoramic radiographs in mixed dentition **alican kuran** Chairs: kristina hellén-halme ruben pauwels	**Poster Session 1** 1. ~~(150) segmentation of pulp and pulp stones with automatic deep learning in panoramic radiographs: an artificial intelligence study~~ **~~muigan firincioglulari~~** 2. (NN) 3. (190) dose measurement and analysis of the dose distribution to relevant radiosensitive organs during the production of digital panoramic tomographs **franziska schindler** 4. (251) fractal analysis of mandibular bone structure after radiotherapy: a comparative study **alican kuran** 5. (25) neural deformable cbct **ralf kw schulze** 6. (171) oral mucosa and salivary glands' radiation dose in three-dimensional tomographic imaging ofimpacted wisdom teeth **serhat efeoğlu** 7. (71) three-dimensional facial imaging: a qualitative analysis of facial scanners **thanatchaporn jindanil** 8. (112) medical – dentomaxillofacial radiologist collaboration in angiography for lips: a case report **fahri reza ramadhan** Chairs: rubens spin-neto

10:30–11:00			Coffee break
11:00–12:00	**Image reading session** Chairs: eva levring jäghagen caroline hol		
12:00–13:00	**Oral Presentation Session 3 (Runder Saal)** artificial intelligence • (34) crossvit vs. resnet for radiographic radiolucent jaw lesion classification: a preliminary result **wannakamon panyarak** • (45) determination of optimal training set for u-net caries recognition model establishment with cbct images **gang li** • (113) deep learning based parotid gland segmentation on computed tomography images using nnu-netv2 framework (original presenter: zeliha merve semerci) **svetlana antic** • (114) detection of osteoporosis in dental panoramic radiographs using deep convolutional neural networks: a pilot study **firdevs aşantoğrol** Chairs: nicholas drage paul van der stelt	**Oral Presentation Session 4 (Konferenz 9)** artificial intelligence • (138) a new era in root canal segmentation: an innovative ai-driven tool for automated bi-rooted premolar root canal segmentation on cbct **rocharles Cavalcante fontenele** • (139) artificial intelligence based dental root canal segmentation from cbct images **csaba dobo-nagy** • (141) performace of a deep learning application in the detection of periapical lesions on panoramic radiographs bence tamás szabó • (142) the accuracy assessment of a cnn based architecture in the anatomical identification of the maxillary sinus and inferior alveolar canal on cbct **prashant p jaju** Chairs: anastasia mitsea kostas tsiklakis	**Poster Session 2** 1. (NP)(144) the performance of a convolutional neural network (cnn) based deep-learning system for caries detection in panoramic radiography 2. **sunali khanna** 3. (164) visnow-medical: bridging the gap between ai and visual interpretation in dental radiology **piotr regulski** 4. (228) exploring pharyngeal airway characteristics with nnunet: a deep learning approach **Esin Kılıç** 5. (229) estimating human age using machine learning on panoramic radiographs **deborah queiroz freitas** 6. (NP)(245) chronological age estimation with panoramic radiographs using predictive formula and neural network: a comparative analysis **maria luiza pontual** 7. (260) enhancing osteoporosis screening with efficientnet-based models for panoramic dental images **andré leite** 8. (91) diagnostic image quality in bitewing examinations **daniel olsson** Chairs: rubens spin-neto
13:00–14:00			Lunch break **Central Board Meeting** @Konferenz 2–4
14:00–14:45	Keynote 2 **Radiomics and AI in head and neck imaging: fundamentals and clinical applications** Dr. Lorenzo Ugga, Italy (more) Chairs: erwin berkhout kaan orhan		

14:45–15:45

Oral Presentation Session 5 (Runder Saal)

artificial intelligence

- (180) detection of bone loss pattern on panoramic radiographs with deep learning method
  beyza yalvaç pınarbaşı
- (210) artificial intelligence system for automatic maxillary sinus segmentation on cone beam computed tomography images
  ibrahim sevki bayrakdar
- (214) a yolov8 approach for the analysis of dental bite-wing radiographs
  cengiz evli

Chairs:
bart vandenberghe
maria garoff

Oral Presentation Session 6 (Konferenz 9)

artificial intelligence

- (224) from 2d to 3d: ai-enabled transformation of periapical dental radiographs into three-dimensional models
  mohammadsoroush sehat
- (231) fully automatic assessment of mandibular condyle changes
  niels van nistelrooij
- (261) 3d tooth segmentation with nn-unet: an artificial intelligence study
  mukadder orhan
- (173) top cited articles in oral radiology: a bibliometric network analysis
  antigoni delantoni
- (175) artificial intelligence-assisted segmentation of lymph nodes in the head and neck region: an ultrasound study
  burak tunahan çiftçi

Chairs:
gang li
kaan orhan

Poster Session 3

1. (226) 3d segmentation in cbct: pterygopalatine canal
   seda nur özdemir
2. ~~(NP)(39) a retrospective longitudinal assessment of artificial intelligence-assisted radiographic prediction of lower third molar eruption~~
   ~~shivi chopra~~
3. (122) dental age estimation by deep learning model from periapical radiographs in thais
   praewpannarai khruasarn
4. (130) oriented tooth detection using yolov8-obb models
   witsarut upalananda
5. (183) performance of an artificial intelligence software in tooth numbering in mixed dentition
   ingrid rózylo-kalinowska
6. (135) pai meets ai – can artificial intelligence perform classification of endodontic treatment outcomes?
   gerald torgersen
7. (104) pulpa x-ray depth analysis and 3d modeling software via periapical radiography
   samed satir
8. (253) evaluating the efficacy of an artificial intelligence in segmenting diverse dental conditions in cone beam computed tomography
   alican kuran

Chairs:
tomasz kulczyk

15:45–16:15		Coffee break
16:15–17:15	**Oral Presentation Session 7 (Runder Saal)** cbct • (7) comparison of the aerodynamic characteristics of the upper airway between chinese and dutch obstructive sleep apnea patients **hui chen** • (18) unveiling oropharyngeal airway characteristics in oral submucous fibrosis: a cross-sectional study employing three-dimensional volumetric analysis **ajo babu george** • (23) feasibility of frozen soft tissues to simulate fresh soft tissue conditions in four cone beam computed tomography (cbct) units **matheus l oliveira** • (50) influence of cbct filters and contrast adjustments on peri-implant buccal bone thickness measurement and blooming expression **Sergio lins de-azevedo-vaz** • (58) does supplemental information from cone beam ct change expected long-term prognosis for teeth with external cervical resorption? **julie suhr villefrance** Chairs: jennifer christensen spyros damaskos	**Oral Presentation Session 8 (Konferenz 9)** cbct • (84) human analogue study assessing possible impact of cbct on outcome efficacy in endodontic access cavity preparations **margarete b mcguigan** • (86) the application and the validity of a new composite radiographic index in patients with osteonecrosis of the jaws **zafeiroula yfanti** • (106) use of spherical segmentation radiomic analysis for differentiation of odontogenic keratocysts and radicular cysts **alican kuran** • (174) the effect of cbct voxel size on the assesment of simulated mandibular condylar erosions: a pre-clinical study **Yasmin youseef** • (199) grey values behavior of cone-beam computed tomography machines – an in vitro study **nicolly oliveira-santos** Chairs: ingrid rózylo-kalinowska roberto molteni

Friday, June 14

	Runder Saal	Konferenz 9	Foyer 1
08:00–08:30			Coffee break
08:30–09:30	**Oral Presentation Session 9 (Runder Saal)** dosimetry & radiation protection • (181) patient radiation dose in orthodontics (prado) **reinier hoogeveen** • (192) establishment of diagnostic reference levels for dental cone beam ct in Greece **georgios manousaridis** • (204) converting dose-area product to effective dose in cone-beam ct using organ-specific deep learning **ruben pauwels** • (208) do alada-dip guide operators in choosing the cbct protocol? **bar roshihotzki** Chairs: madeleine rohlin ralf schulze	**Oral Presentation Session 10 (Konferenz 9)** endodontics, epidemiological studies, forensics • (123) accuracy of periapical radiographs and cbct for diagnosing apical periodontitis. an ex vivo histological study on human cadavers **lise-lotte kirkevang** • (148) interpretation of incidental hyperdense soft tissue findings. a retrospective study on 511 cone beam ct datasets **andronikos zoukos** • (216) cbct of the jaw and its usefulness in forensic dentistry: scope review **elisa parraguez lópez** • (235) age estimation and sex determination by artificial intelligence in a greek population study: a pilot study **anastasia mitsea** • (239) artificial intelligence in forensic dentistry identification. a systematic review **kyriaki briamatou** Chairs: dorothea dagassan raluca roman	**Poster Session 4** 1. (NP)(35) cone beam ct imaging as a guiding tool in diagnosing odontogenic pathologies of jaw **mahendra patait** 2. (NP)(207) unusual findings in post evacuation sialo-cbct image of chronic obstructive sialadenitis **thalia schwartz** 3. (219) correlation of cone beam computed tomography (cbct) findings in the maxillary sinus with dental diagnoses **dan brüllmann** 4. (255) investigation of endodontic treatments in central anatolia by cone-beam computed tomography **hilal yalın** 5. (42) reduction of ghost images of cervical vertebrae on vertical dual-exposure panoramic radiography **shoichi asakura** 6. (143) diagnostic efficiency of low-dose cbct in post-grafting evaluation among swedish paediatric patients with alveolar clefts **antónio vicente** 7. (44) an alternative radiographic approach using combined cbct and ultrasonography for diagnosis of late onset infections based on a clinical case series **antigoni delantoni** 8. Chairs: ana reis durão
09:30–10:30	**Industrial Partner's Forum** Chairs: eva levring jäghagen kaan orhan		

10:30–11:00			Coffee break
11:00–12:00	**Oral Presentation Session 11 (Runder Saal)** imaging artifacts, implantology • (120) impact of common dental materials on metal artifact reduction in maxillo-facial mdct examination **svetlana antic** • (209) exposure of psp plates with red, blue and green light before scanning: does changing order affect signal loss? **hakan amasya** • (54) impact of dose-lowering cbct protocols on height and width measurements in the mandible – an ex vivo study in human cadaveric specimens (alt presenter: laurits kaaber) **lars schropp** • (100) diagnostic image quality of low-dose, standard, and high-resolution cbct for alveolar bone measurements: an ex vivo study in human specimens **laurits kaaber** Chairs: anastasia mitsea paul van der stelt	**Oral Presentation Session 12 (Konferenz 9)** 2d-imaging, 3d/4d-imaging • (268) bilateral vessel-outlining carotid artery calcifications in panoramic radiographs – stronger indicator for risk of vascular events than plaquearea **maria garoff** • (75) the radiation dose in the cone beam computed tomography evaluation of maxillary impacted canines in pediatric patients **merve çağlar** • ~~(109) pet-ct scan of multiple invasive external cervical root resorption in denosumab-treated metastatic breast cancer patient- a case report (origonal presenter: maya mazal ariel nahalon)~~ **~~silvina friedlander barenboim~~** • (136) patients with crowding and partial edentulous spaces: the influence of intraoral scanning technology on trueness of digital images **bruna n freitas** • (223) comparison on assessment of caries on three digital radiographic image types: intraoral bitewing, cbct, and digital tomosynthesis. in-vitro study **olesya svystun** • Chairs: rubens spin-neto raluca roman	**Poster Session 5** 1. (26) qualitative and quantitative analysis of the most common mini-plates placement sites in adult patients: a comparative cross-sectional study **abeer almashraqi** 2. (32) odontoma associated with unerupted lower third molar in an young adult patient – case report **ana reis durao** 3. (105) current status of teleradiology services in japan based on medical fee claims from the national health insurance **kenichiro ejima** 4. (221) dramatic bone lesion with minor radiographic features in 2d imaging **humphrey ackam** 5. (147) an unusual cbct ring artifact not previously noted in the literature. a technical report **antigoni delantoni** 6. (189)the effect of radiographic variables demonstrated in cbct on impacted root development **chen nadler** 7. (215) the role of cbct in evaluating the periapical lesion size: case report (alt presenter: danisia haba) **antohi cristina** 8. (185) analysis of spheno-occipital synchondrosis for age estimation using cone-beam computed tomography in latvian individuals **zanda bokvalde** Chairs: magdalena marinescu gava

12:00–13:00	**EADMFR Award Oral Presentation Session (Runder Saal)** • (166) cbct after opg for high-risk wisdom tooth surgery reduces patient anxiety and allows a better understanding of surgical risks **rahmeh alhyari** • (70) novel ai-based tool for prosthetic crown segmentation serving automated cbct-ios registration in challenging high artifact scenarios **bahaaeldeen m. elgarba** • (186) reference values for the elasticity of submandibular lymphadenopathy caused by inflammatory diseases of the maxillofacial region: a preliminary study **besel yılmaz** • (188) a novel convolutional neural network-based tool for automated segmentation of pulp cavity structures in single-rooted teeth using cbct **marie louise slim** Chairs: erwin berkhout ralf schulze	
13:00–14:00		Lunch break
14:00–14:45	Keynote 3 **Photon-counting CT: status quo and application in DentoMaxilloFacial Radiology** Prof. Dr. Florian Dammann, Switzerland (more) Chairs: dennis rottke rubens spin-neto	
14:45–15:15		Coffe break
15:15–17:00	**General Meeting** Members only Chairs: EADMFR Board	
19:00–23:00		**Gala Dinner** (read more)

Saturday, June 15

	Runder Saal	Konferenz 9	Foyer 1
08:00–08:30			Coffee break
08:30–09:30	**Oral Presentation Session 14 (Runder Saal)** mri • (21) detection of caries lesions using a water-sensitive stir sequence in dental mri **egon burian** • (27) dental mri – a method to monitor periodontal edema in patients with periodontal disease **monika probst** • (28) deep learning networks towards segmentation of the lower and upper jaw **Victoria thierauf** • (29) detection of nerve injury of the lingual and the inferior alveolar nerve by using dental mri **monika probst** • (36) dental-dedicated mri for assessment of lower third molars: a pilot study **Jennifer christensen** Chairs: jeroen van dessel spyros damaskos	**Oral Presentation Session 15 (Konferenz 9)** mri • (76) accuracy of mri-derived virtual 3d bone models & clinical feasibility in mri-based guided implant surgery **florian probst** • (87) dental-dedicated magnetic resonance imaging and cone beam computed tomography for apical periodontitis assessment: a comparative in vivo pilot study **joao fuglsig** • (110) accuracy of dental mri for full-navigated dental implant planning in a private practice setting **christian ott** • (115) development and testing of a carrier phantom for examining dental materials in dental-dedicated magnetic resonance imaging **matheus sampaio-oliveira** • (116) image artifacts generated by zirconia implants and their impact on magnetic resonance image quality **johanna schmitz** Chairs: reinier hoogeveen tomasz kulczyk	**Poster Session 6** 1. (212) radiographic features of arteriovenous malformation **carolina baltera zuloaga** 2. (73) radiological findings of primary non-hodgkin's lymphomas of the jaws. a review of 8 cases **emmanouil chatzipetros** 3. (177) comparison of oral squamous cell cancer patients according to hpv+ and hpv- status in terms of clinical, genomic and mutations **alp pınarbaşı** 4. (233) evaluation of the dent periodontal status by using ct before and after radio and/ or chemotherapy in patients with oncological pathology in the ent (alt presenter: danisia haba) **cristina antohi** 5. (108) frontal sinus osteoma in a young patient – case report **ana reis durao** 6. (230) a rare case report: multiple endocrine neoplasia type 2b syndrome **sultan uzun** 7. (250) multiple odontogenic keratocysts in a non-syndromic paitent: an 8-year follow-up **alican kuran** 8. (68) glandular odontogenic cyst of the mandible: case series **hanadi sabban** 9. (17) radiological evaluation of permanent teeth of children for treatment planning **deimante ivanauskaite** Chairs: bence tamás szabó
09:30–10:15	Keynote 4 **Expansion of the diagnostic spectrum: Dental MRI** Prof. Dr. Tim Hilgenfeld, Germany (more) Chairs: dorothea dagassan ingrid rózylo-kalinowska		

10:15–10:45			Coffee break
10:45–11:45	**Oral Presentation Session 16 (Runder Saal)** mri • (117) interference of titanium and zirconia implants on dental-dedicated magnetic resonance image quality: ex vivo and in vivo assessment **rubens spin-neto** • (126) automatic view planning in dentomaxillofacial magnetic resonance imaging **carmel hayes** • (154) in vivo reliability and accuracy of dental mri for identification of cemento-enamel-junction **marilena kranz** • (198) comparison of 0.55t and 1.5t mri images of temporomandibular joints **beth groenke** • (227) deep-learning based image reconstruction to accelerate mri scan time **donald nixdorf** Chairs: bence tamás szabó ruben pauwels	**Oral Presentation Session 17 (Konferenz 9)** systematic reviews/evidence based approaches, teaching & education • (41) teach me some radiation physics – large language models as teaching assistants in oral radiology • **gerald torgersen** • (47) effectiveness of periapical radiography training kit for dental undergraduates: a preliminary study **azizah ahmad fauzi** • (99) does the use of centring rings change the number of retakes or frequency and size of cone cuts in intraoral images performed by dental students? **louise hauge matzen** Chairs: magdalena marinescu gava rocharles fontanele	**Poster Session 7** 1. (119) treatment plan for impacted maxillary third molars based on radiological findings varies among oral surgeons – a web-based "paper" clinic study **louise hermann** 2. (238) dental materials artifacts in mri – an in vivo retrospective study **silvina friedlander barenboim** 3. (232) development of simplified workflows for dental-dedicated mri: technical description and user acceptance evaluation **gerrit wigger** 4. (252) an mri investigation of temporomandibular joint disorders and hypertrophic uvula palatina: is there a link? **alican kuran** 5. (161) quantitative analysis of masseter muscle by ultrasonography according to different occlusion types using eichner classification **sultan uzun** Chairs: jeroen van dessel
11:45–12:45	**Oral Presentation Session 18 (Runder Saal)** salivary glands, ultrasound, technical developments / new techniques • (118) intraoral ultrasonography in assessing the depth of invasion of t1 – t3 stage oral squamous cell carcinoma **Biljana markovic vasiljkovic** • (168) ultrasonographic assessment of masseter and temporal muscle dimension and internal structure in young adult patients with bruxism: a preliminary study **aslihan artas** • (74) ultra-high frequency ultrasound of minor salivary glands correlates with acr/eular criteria: data from a cohort of sjögren patients **rossana izzetti** Chairs: dennis rottke eva levring jäghagen	**Oral Presentation Session 19 (Konferenz 9)** mri, oral & craniofacial pathology • (248) a workflow- and patient-comfort optimized dental-dedicated mri coil: technical characterization and user acceptance evaluation **andreas greiser** • (257) focusing on the dentomaxillofacial region in dental-dedicated mri workflows **andreas greiser** • (264) imaging findings of nasopharyngeal tumors in padiatric population **danisia haba** • (256) tailoring the examination workflow in dental-dedicated mri **miriam van de stadt-lagemaat** Chairs: dirk schulze kaan orhan	**Poster Session 8** 1. (170) dentomaxillofacial radiology residency program in indonesia: past, present and future **menik priaminiarti** 2. (81) a review of the use of contrasting cases to support nonanalytic learning, and calibration of this approach in oral radiology in dental education **nur aainaa aqila khairuddin** 3. (96) patient knowledge and understanding regarding x-rays and imaging exams **gabriela liedke** 4. (213) evaluation of the radiation dose exposed to surrounding tissues and organs by cbct imaging obtained at low and high doses for dental implant planning **cengiz evli** 5. (69) quantitative evaluation of peri-implant trabecular bone after prosthodontic loading: a radiomorphometric analysis using panoramic radiography **elif aslan** 6. (NP)(153) biomechanical evaluation of different miniplate shapes for mandibular symphysis fracture: a finite element analysis using cbct data **norliza ibrahim** Chairs: raluca roman