

## How machine learning is transforming diagnostics

Thematic Session 16

**Sunday 11 July**  
**15:00 - 16:00**

**Location** Virtual Room 5

**Chairs** G. Salomon, Hamburg (DE)  
K.A.O. Tikkinen, Helsinki (FI)

### Learning objectives

Machine learning is a rapidly developing field with the potential of transforming diagnostics in urology. This session, with pre-recorded lectures from experts and live moderation and discussion, will give an overview of the medical applications of AI and machine learning, the latest breakthroughs, and what they can mean for urologists in the near future. This session also features an update on the PIONEER project and a live debate on radiomics.

**15:00 - 15:05**

**Introduction: AI in urological imaging**  
G. Salomon, Hamburg (DE)

**15:05 - 15:10**

**The beginning of a new area: Principal basics of AI**  
D. Bonekamp, Heidelberg (DE)

**15:10 - 15:15**

**Screening for prostate cancer: Will AI play a role?**  
M. De Rooij, Nijmegen (NL)

**15:15 - 15:20**

**Discussion**

**15:20 - 15:25**

**AI and the 3D multiparametric ultrasound**  
M. Mischi, Eindhoven (NL)

**15:25 - 15:30**

**mpMRI in recurrent prostate cancer following radiotherapy**  
U. Van der Heide, Amsterdam (NL)

**15:30 - 15:35**

**Discussion**

**15:35 - 15:40**

**AI in uro-pathology**  
T. Mirtti, Helsinki (FI)

**15:40 - 15:45**

**PIONEER update Advanced analytics and incorporation of AI models**  
B. De Meulder, Lyon (FR)

**15:45 - 15:50**

**Discussion**

**15:50 - 16:00**

**Debate Radiomics simplified: False discovery or genuine insight?**

**15:50 - 15:52**

**Flash presentation Pro**  
To be confirmed

**15:52 - 15:54**

**Flash presentation Con**  
A. Hung, Los Angeles (US)

**15:54 - 16:00**

**Discussion**