

# TC206 - OBSERVATIONAL METHOD CONFERENCE

## Session 1:

## Links with Technical Committees - TC103 / ERTC7

**Franz Tschuchnigg**

*Graz University of Technology*

*Institute of Soil Mechanics, Foundation Engineering and Computational Geotechnics*

# LINKS WITH TECHNICAL COMMITTEES - TC103 / ERTC7

## TC103 - Numerical Methods in Geomechanics

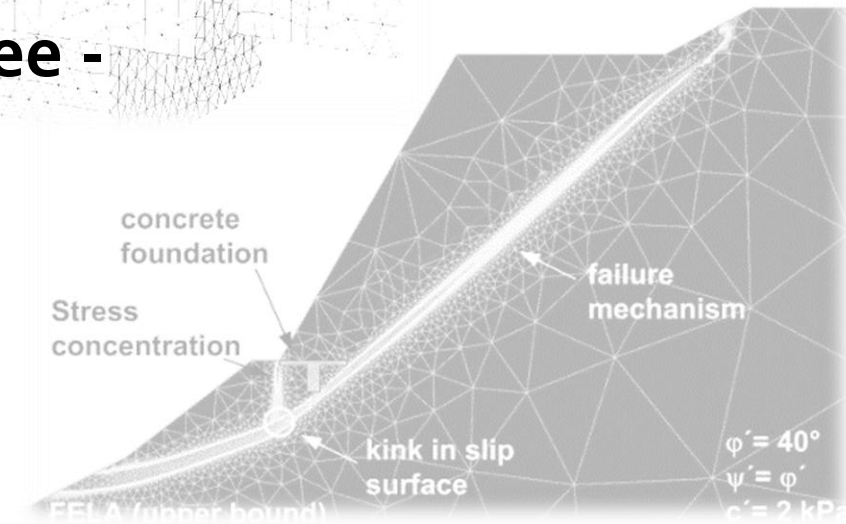
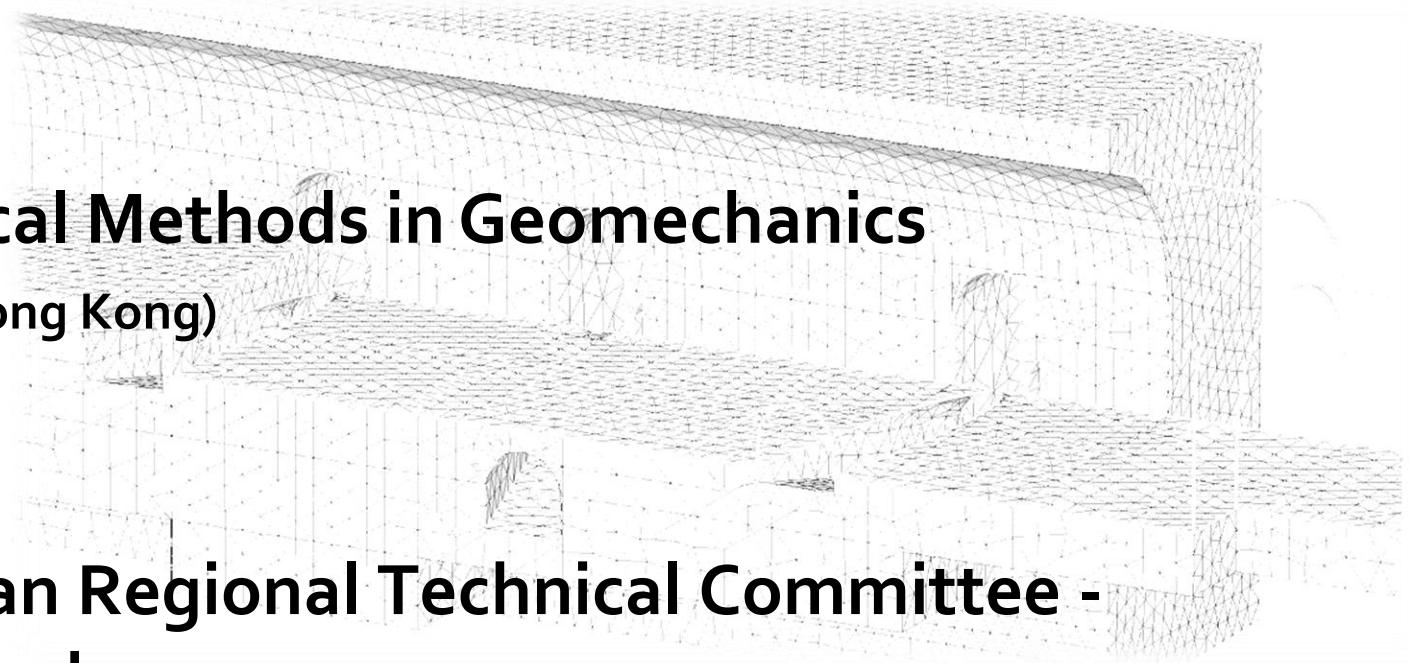
Chair: Jidong Zhao (Hong Kong)

Members: 97

## ERTC7 - European Regional Technical Committee - Numerical Methods

Chair: Franz Tschuchnigg (Austria)

Members: 48

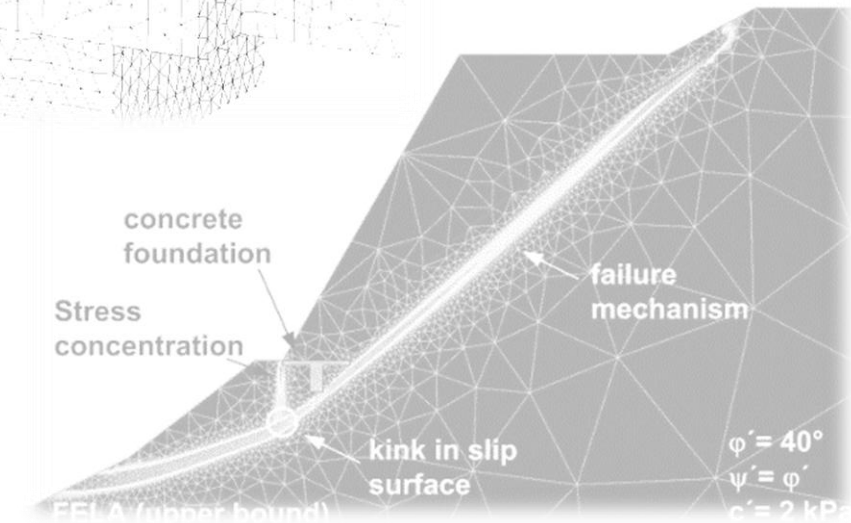
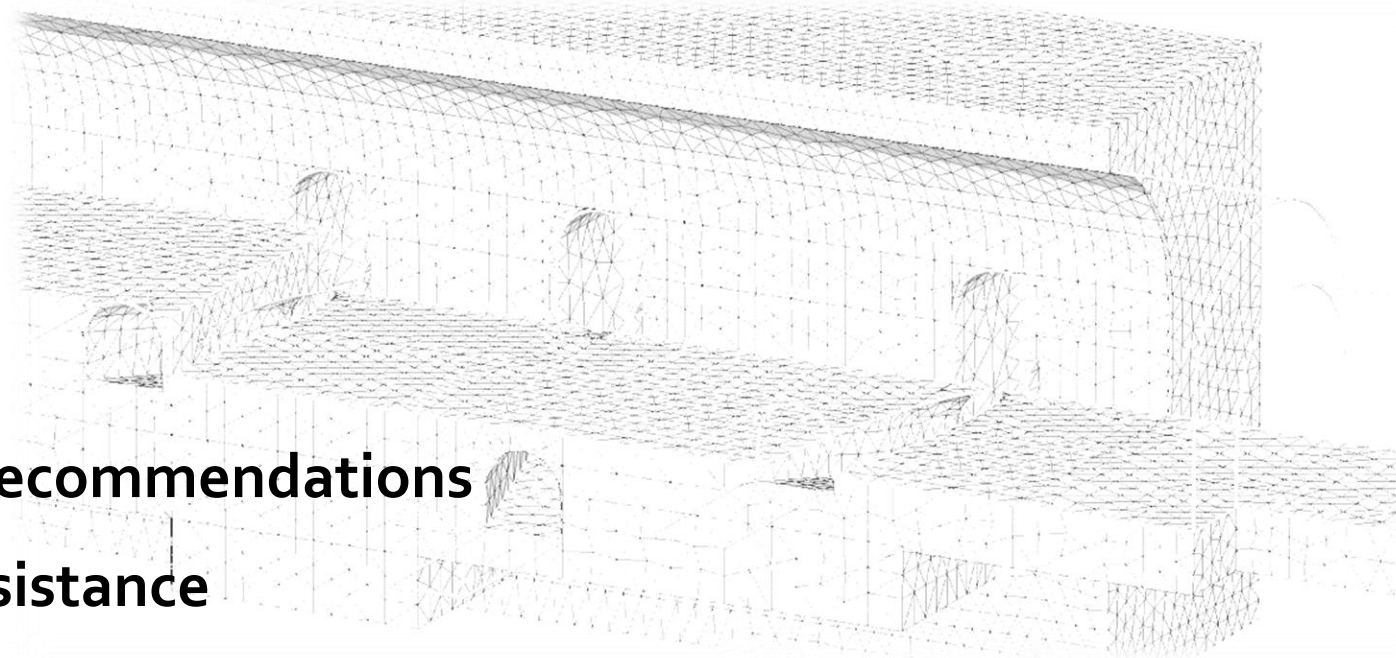


# LINKS WITH TECHNICAL COMMITTEES - TC103 / ERTC7

## Objectives:

- Dissimination
- Guidelines & Recommendations
- Conference Assistance
- Industry links

& fostering collaboration across other TCs



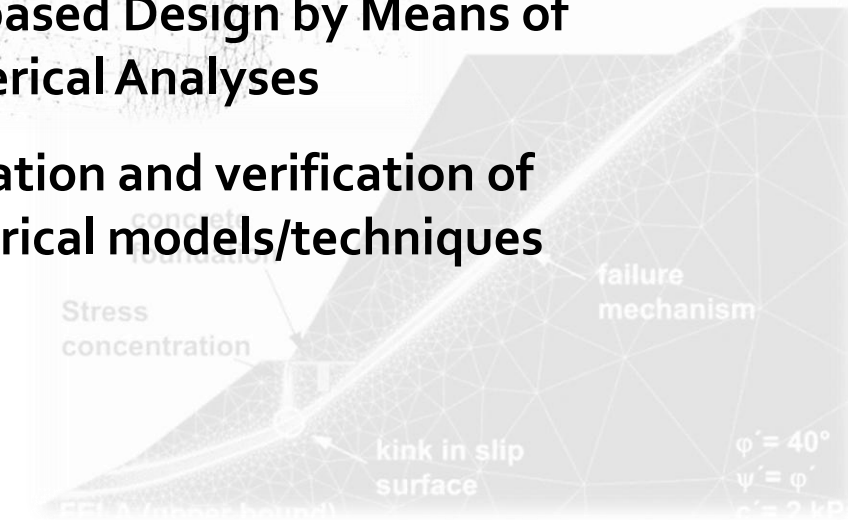
# LINKS WITH TECHNICAL COMMITTEES - TC103 / ERTC7

## Current activities TC103:

- Scott Sloan Honour Lecture
- ISSMGE Interactive Technical Talks (IITT)
- Webinar Series for Virtual University
- *State of the Art* reports
- Supporting committee entitled 'Numerical Methods in Practice'
- Conferences & Workshops

## Current activities ERTC7:

- Updated membership since 2023
- Installation of two subgroups:
  - EC7-based Design by Means of Numerical Analyses
  - Validation and verification of numerical models/techniques



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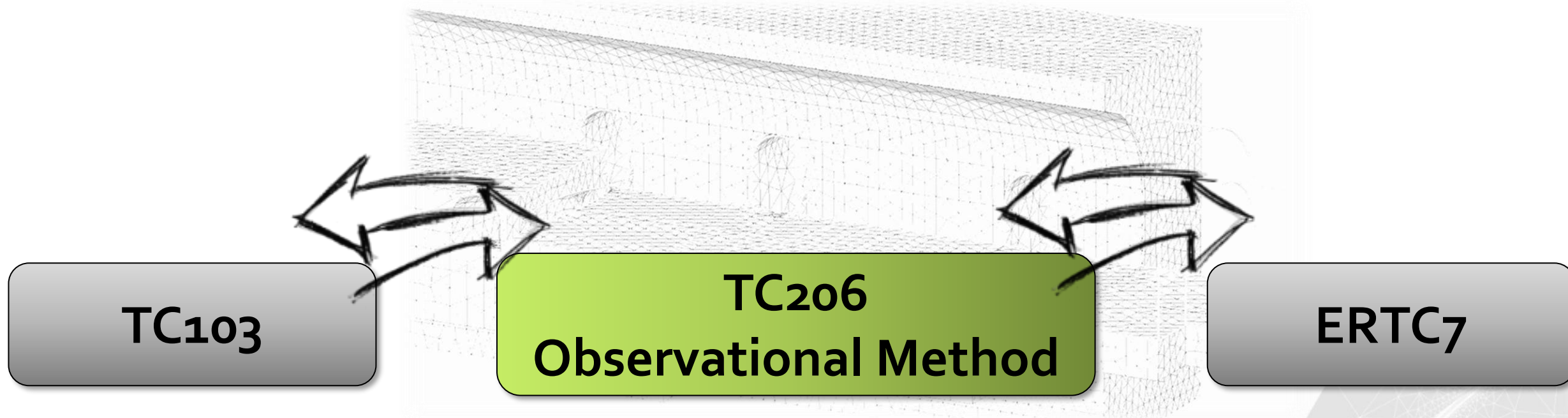
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[www.tugraz.at/events/numge2027/home](http://www.tugraz.at/events/numge2027/home)



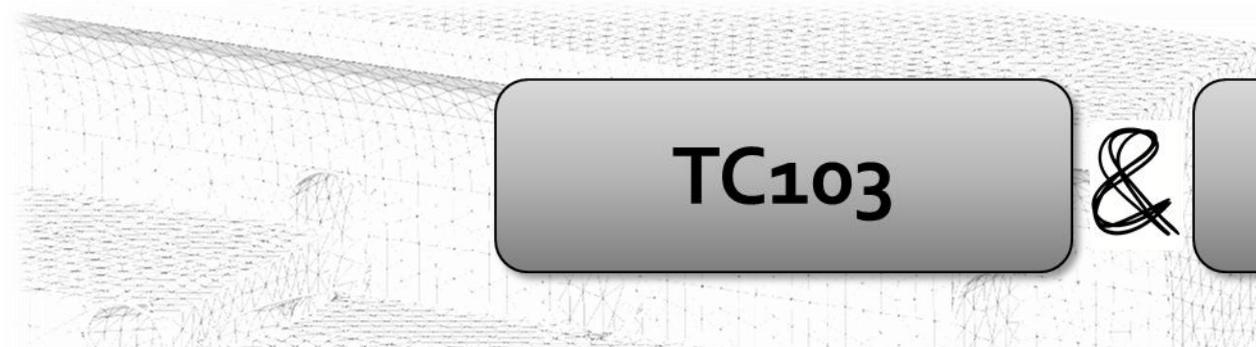
## LINKS WITH TECHNICAL COMMITTEES - TC103 / ERTC7



...closely linked => Numerical models can be used to **predict, interpret,** and **update** soil and soil–structure behavior => essential of the Observational Method.



# LINKS WITH TECHNICAL COMMITTEES - TC103 / ERTC7



TC103



ERTC7

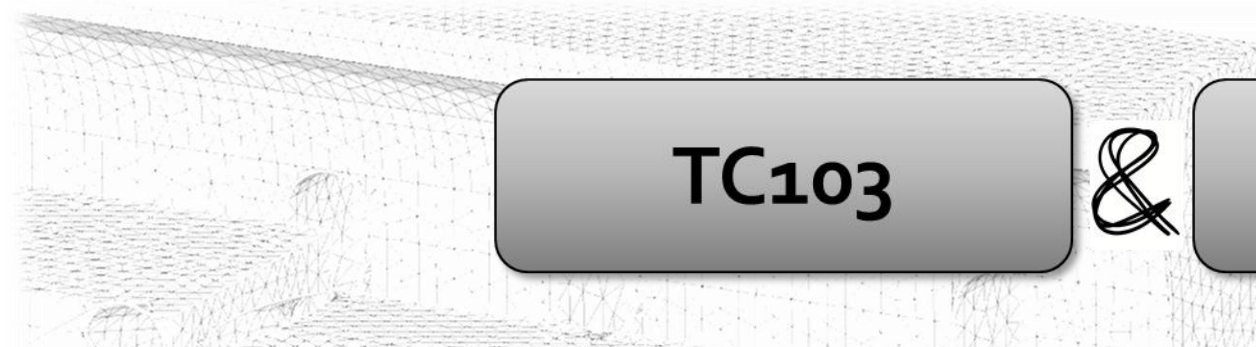
**TC206**  
**Observational Method**



- Emerging directions:**
- Real Time Back Analysis (RTBA) => Session 3
  - Automation of back analysis
  - Uncertainty quantification
  - Digital twins for geotechnical systems
  - .....



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TC103



ERTC7

**TC206**  
**Observational Method**



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# LINKS WITH TECHNICAL COMMITTEES - TC103 / ERTC7

## Real Time Back Analysis

What can TC103 / ERTC7 offer?

Ways to Strengthen Cooperation Between TC103 / ERTC7 and TC206?

- Regular focused exchanges (maybe within the TC206-RTBA group)
- Dedicated „cross-TC“ working group
- Joint workshops / sessions at conferences
- .....



NUMGE <sup>11<sup>th</sup></sup>  GRAZ 2027

Stress concentration  
concrete foundation

failure mechanism

kink in slip surface

$\phi' = 40^\circ$   
 $\psi' = \phi'$   
 $c' = 2 \text{ kPa}$

=> What about other TCs (e.g. TC309, TC304....)?



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