## Preliminary program of the 44th International Seminar on Material Mechanics May 29 to June 2, 2023 on Cres, Croatia

| No. | Time  | Presenter       | Title  | Affiliation             |
|-----|-------|-----------------|--|-------------------------|
|     |       |                 | Sunday   |                         |
|     | 15:00 |                 | Registration and Welcome Reception   |                         |
|     | 09:15 |                 | Monday  Welcome speak  |                         |
| 1   |       | C. Fällgren     | A damage parameter for multiaxial loads within the scope of the FKM guideline  | TU Darmstadt            |
| 2   |       | J. Kraft        | Multiaxial Fatigue   | TU Darmstadt            |
|     | 12:30 | J. Krare        | Lunch break  | 10 Burristaat           |
| 3   |       | A. Linn         | Fatigue assessment under nonproportional loading based on scaled normal stresses   | TU Clausthal            |
| 4   | 15:30 | J. Hamacher     | Notch approximation methods for components under thermomechanical stresses   | TU Darmstadt            |
| 5   | 17:00 | A. Tsakmakis    | Modelling of crack propagation in ductile materials  | TU Darmstadt            |
|     | 18:30 |                 | End  |                         |
|     |       |                 | Tuesday  |                         |
| 6   | 09:30 | P. Yadegari     | Fatigue strength of ultra-high strength steels and surface-hardened components   | TU Darmstadt            |
| 7   | 11:00 | E. Marković     | Development of a finite element model of functionally graded material steel specimens  | U Rijeka                |
|     | 12:30 |                 | Lunch break  |                         |
| 8   | 14:00 | J. Neuhäusler   | Fatigue strength of welded joints based on notch strains and the influence of weld modelling   | HM München              |
| 9   | 15:30 | M. Fettke       | Evaluation of the remaining fatigue life of welded and hybrid steel railway bridges of the 1930s to the 1970s                                    | Deutsche Bahn           |
| 10  | 17:00 | D. Iljkić       | Computer simulation of quenching and tempering of steel  | U Rijeka                |
|     | 18:30 |                 | End  |                         |
|     |       |                 | Wednesday  |                         |
|     |       |                 | Excursion to Lošinj  |                         |
| 11  | 00.20 | A               | Thursday   | III Lindaliana          |
|     |       | A. Žerovnik     | Fatigue of shape memory NiTi alloy under superelastic conditions  On the modeling of cyclic plasticity of metals with a new isotropic model      | U Ljubljana<br>U Rijeka |
| 12  | 12:30 | J. SITIEC NOVAK | Lunch break  | O NIJEKA                |
| 13  |       | R. Basan        | An overview of design-relevant nonferrous alloys and estimation of their fatigue behavior  | U Rijeka                |
| 14  | 15:30 | C. Gakias       | A computational investigation of the correlation between Almen intensity and residual stresses induced by stress shot peening                    | AU Thessaloniki         |
| 15  | 17:00 | E. Giannakis    | Fatigue Assessment of Automotive Leafsprings   | AU Thessaloniki         |
|     | 18:30 |                 | End  |                         |
|     |       |                 | Friday   |                         |
| 16  | 08:00 | F. Alizadeh     | Assessment of Degraded Material Properties on the Strength of Marine Composite Structures  | TU Darmstadt            |
| 17  | 09:30 | F. Alizadeh     | Autofrettage of additively manufactured high-pressure components   | TU Darmstadt            |
| 18  | 11:00 | A. Psarros      | Mechanical properties of lattice structures fabricated by additive   | AU Thessaloniki         |
|     |       |                 | manufacturing  |                         |
|     | 12:30 |                 | Lunch break  |                         |
| 19  | 14:00 | J. Papuga       | The effect of various heat treatments on fatigue life of additively manufactured specimens from AlSi10Mg $$                                      | CTU Prague              |
|     |       | A. Kern         | Fatigue strength of additively manufactured aluminum components  | TH Mittelhessen         |
| 21  | 17:00 | J. Lizarazu     | Experimental investigation and numerical analysis of additively manufactured mild steel components under monotonic and cyclic loading conditions | MFPA Weimar             |
|     | 18:30 |                 | Closing speak  |                         |