Fatigue assessment of polymer materials for automotive applications

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Duration: 2018 - 2022
Funding: Scania CV AB/KTH/ECO2
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Research Scope:
• A detailed literature review and state-of-the-art for fatigue models for thermoplastics, fatigue and fracture mechanisms.
• Material characterization and micro structural analysis for calibration of local fatigue model parameters.
• Investigating the applicability of probabilistic fatigue design models for thermoplastics and fiber reinforced structures.
• Application of developed and validate fatigue design concepts (deterministic and probabilistic) to vehicle components.