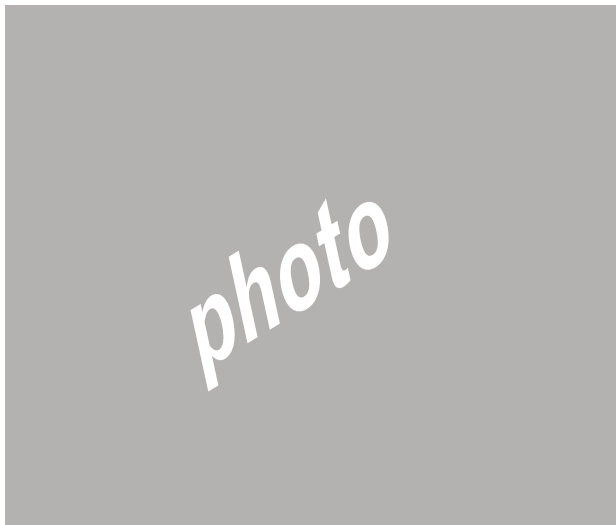# Modelling of Oscillation Marks in Continuous Casting

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Aims

The aim of this STSM was to drive state-of-the-art mathematical models for the process. In addition to predicting formation of oscillation marks, the models seek to quantify stable process operating windows in terms of mould oscillation frequency

and amplitute, superheat, powder flux properties and casting speed.

Outcome

The models take into account the complex interplay of fluid dynamics, solid mechanics and heat transfer near the oscillating mould wall, where steel and flux are present in both solid and molten states. Asymptotic and numerical techniques were emplyed.

SISMs aim to: Strengthen existing COST Actions, Support scientists to visit other institutions or laboratories, and Foster collaborations.

Bio

Kevin Devine is a PhD researcher at MACSI in the University of Limerick, his research deals with modelling of the continuous casting of steel process. Kevin carrieed out his STSM at the KTH Royal Institute of Technology, Sweden in collaboration with Dr Vynnycky.

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