



Analysis of Piston Heat Flux for Highly Complex Piston Shapes

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Poster Location P-10

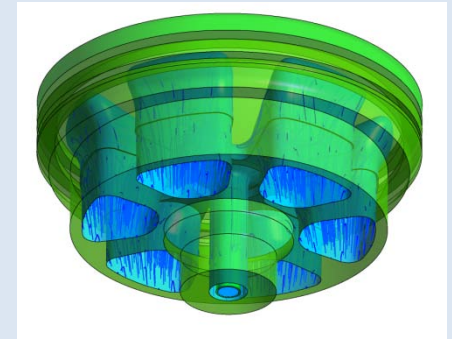
What is poster P-10 about?

- The natural next step toward a high fidelity cooling analysis is to couple the combustion simulation directly with the Conjugate Heat Transfer (CHT) analysis.

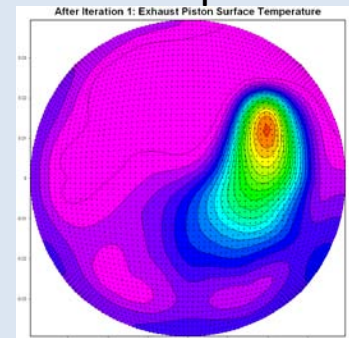
Why is it important?

- In an opposed piston engine the majority of the rejected heat has to be removed by cooling the pistons.
- Effective piston cooling becomes an important design requirement for structural and durability reasons.
- Represents an opportunity to improve piston cooling analyses of new and complex piston bowl shapes and can be extended to the piston cooling of any engine configuration.

Piston Crown



Piston Temperature



Heat Flux

