### **P19**

### Adaptive PCCI with Variable Orifice Injector for Low Cost High Efficiency Clean Diesels

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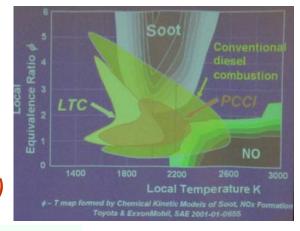
**QLC** QuantLogic Corp.

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# Clean In-Cylinder Combustion with Low Cost, High Efficiency

### Key Enablers:

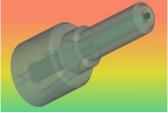
- MVCO Injector
- Dual-mode PCCI
- Novel Chamber (patents issued & pending)

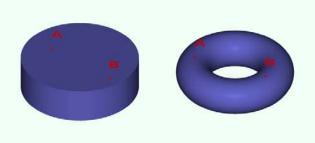


## 1. Micro-Variable Circular Orifice (MVCO) Injector

- Variable Spray Angles
- Variable Spray Patterns
- Enable Optimization at Each Speed and Load Points









3. Novel Chamber
Promote Mixing, Stratification and
Reaction Rate Control

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#### 2. Adaptive Dual-mode PCCI

- Flexibility for different loads & modes of combustion;
- Reduces chamber wetting;
- NOx, HC, CO, Soot reduction
- · LTC:
- High Efficiency;
- Controlled fast reaction;
- 'On-demand' EGR