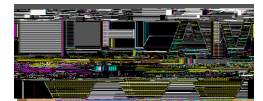




# Optimizing Composite Repair by Tailored Heat Sources



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Operational Performance of  
Composite



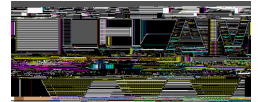
to optimize performance and  
operational control of repair







# Goal

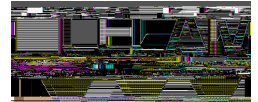


to produce a wide range of products from  
 a single source in a  
 peaceful and controlled environment  
 to produce a wide range of products from  
 a single source in a  
 peaceful and controlled environment





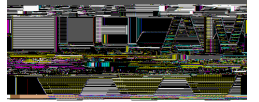
# Current Process



In many necessary requirements for  
 the process of repair and  
 in the repair zone the process  
 is not the same as the process  
 and the organization of the process  
 determine the order of the  
 the addition of the material  
 are needed  
 to achieve the desired performance

Applicable configuration





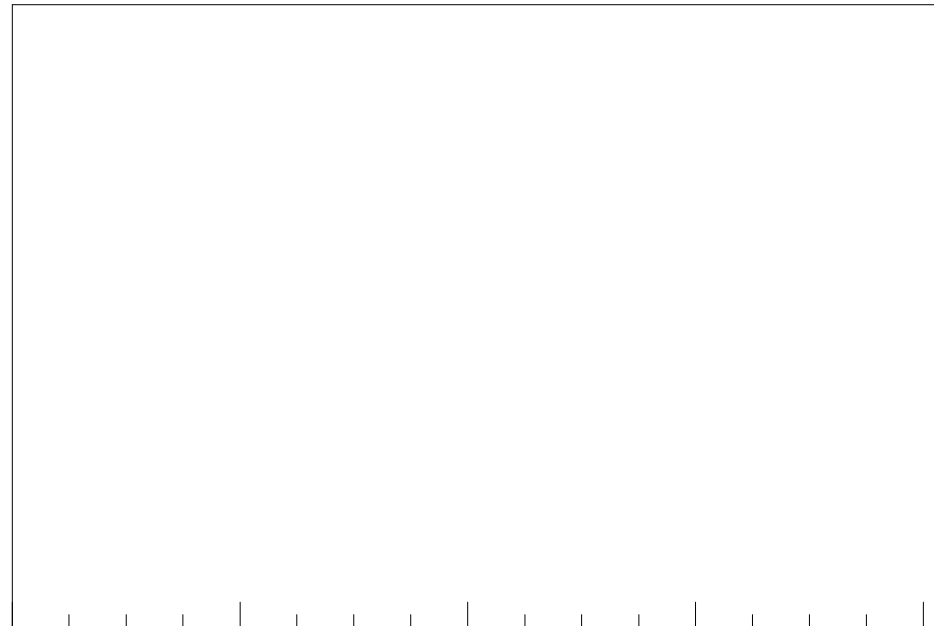
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Engineering Laboratory of Performance

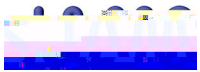


Performance

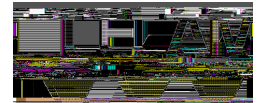


Time (min)

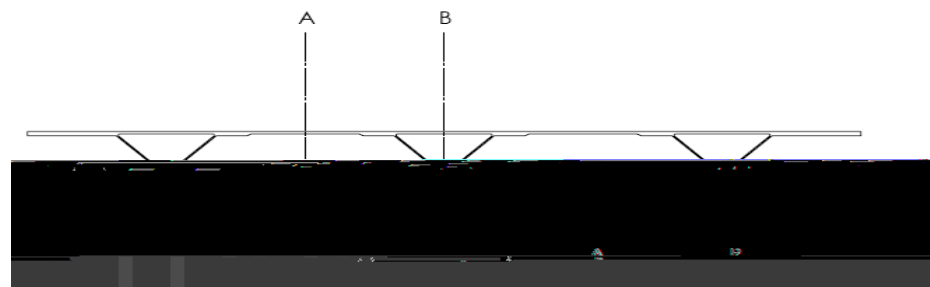
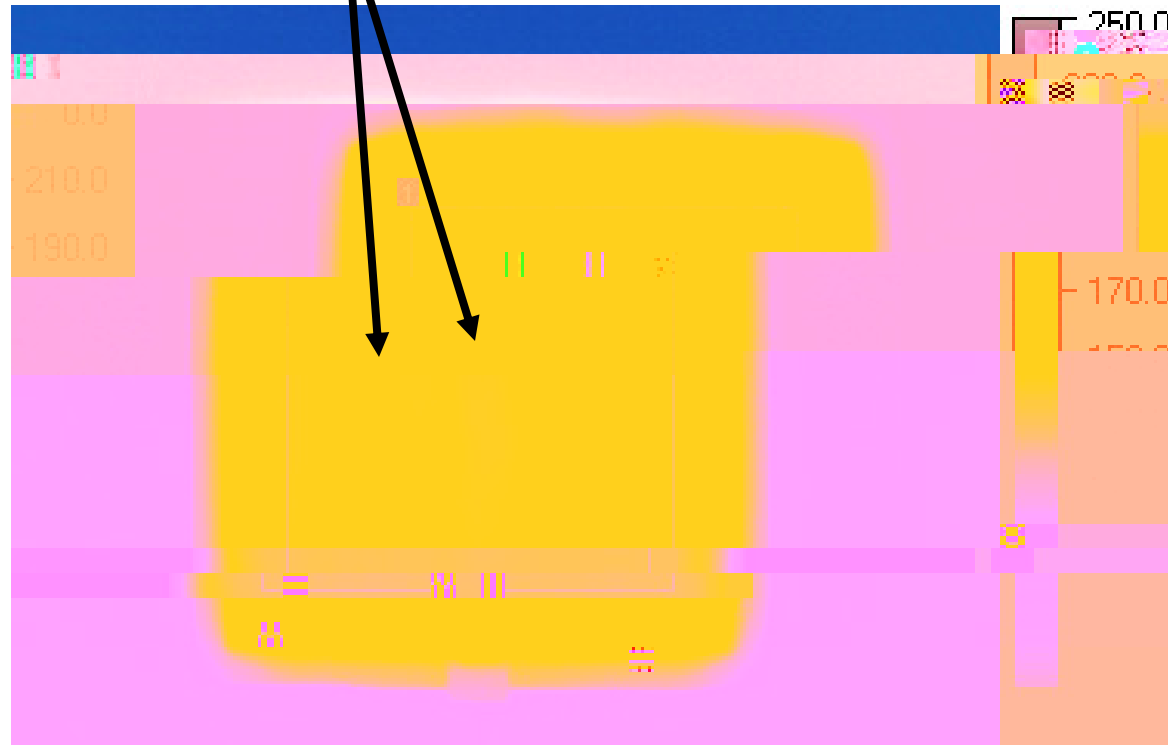




# Thermogram of a panel with stringers at steady state



No e e e per re n ion



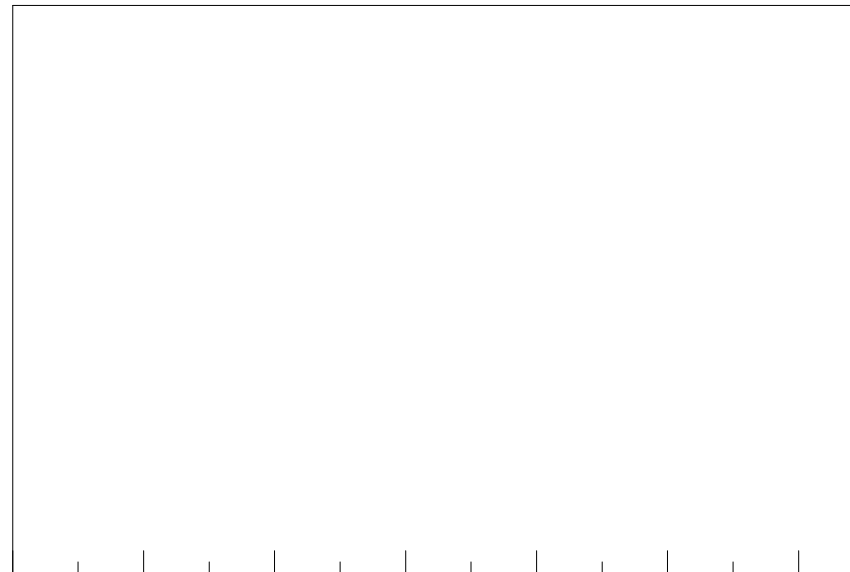
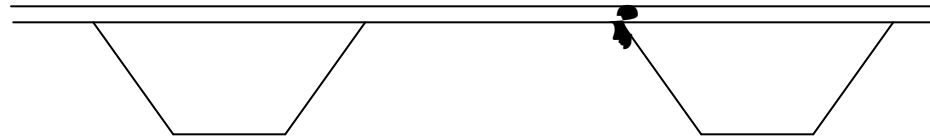


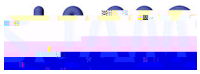


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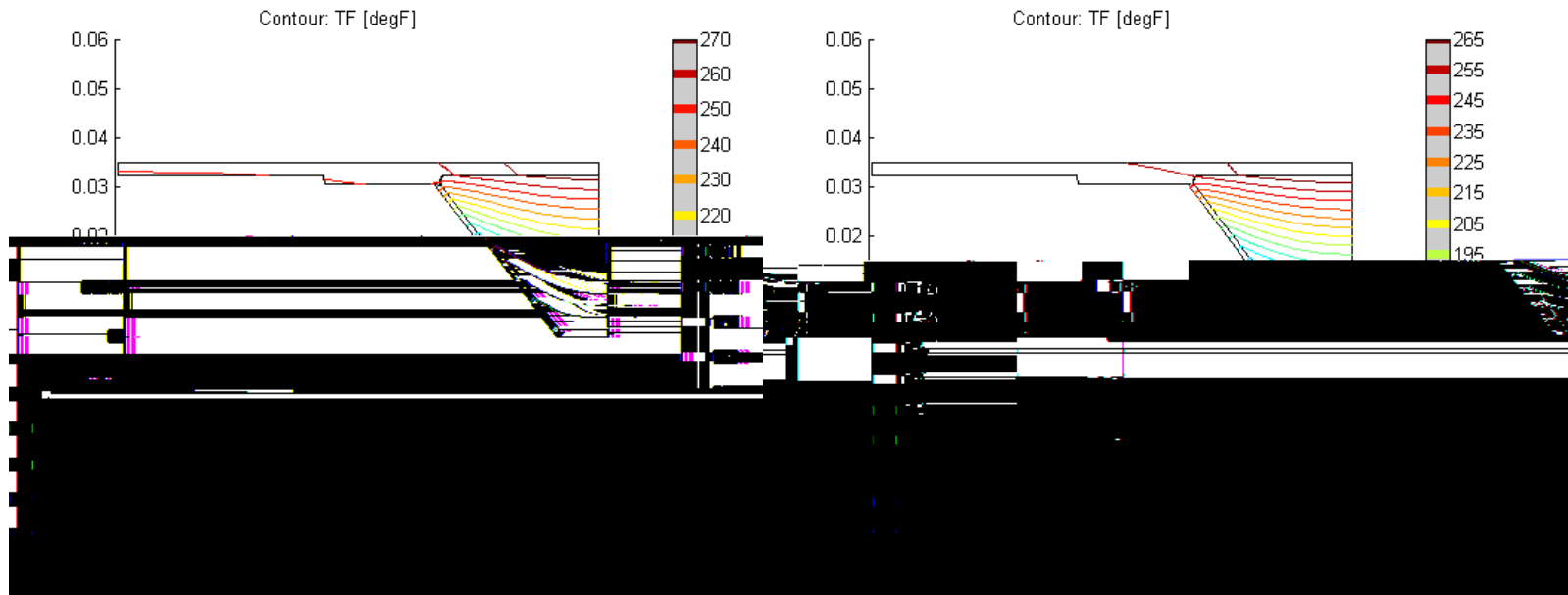
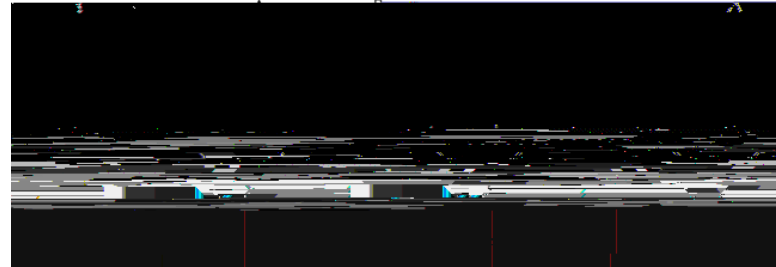
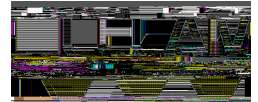


Temperature Distribution  
Coordinate





# Different Cooling rate of the Laminar







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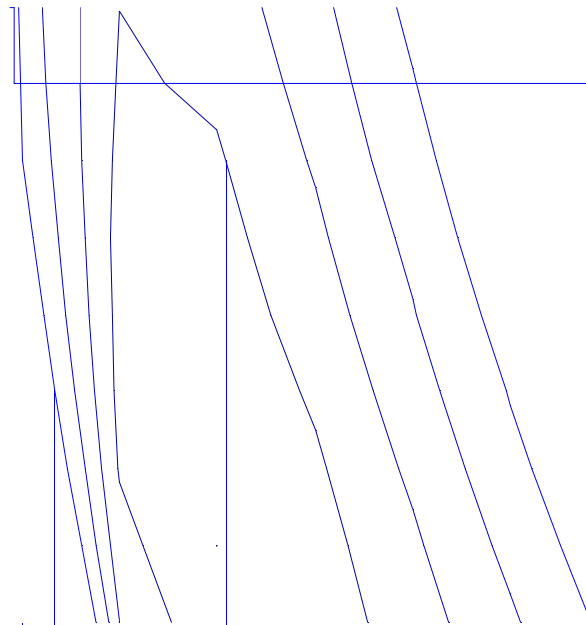
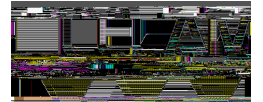




No e r c e o r e

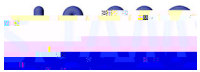


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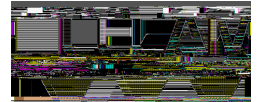


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Minimizing Co-operative Design  
 dependence of electronic industry

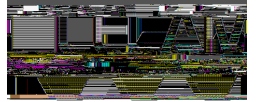


Empirical proportion for non-linear properties  
 dependence properties  
 and properties are **irreversible** considered

approach registered

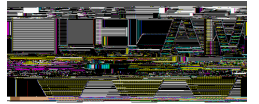
Decomposing Proper Orthonormal Decomposition  
 using principal components

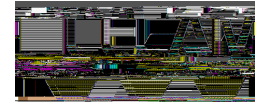




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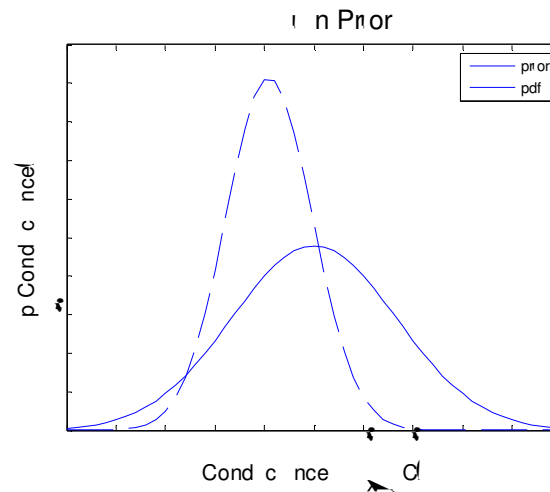
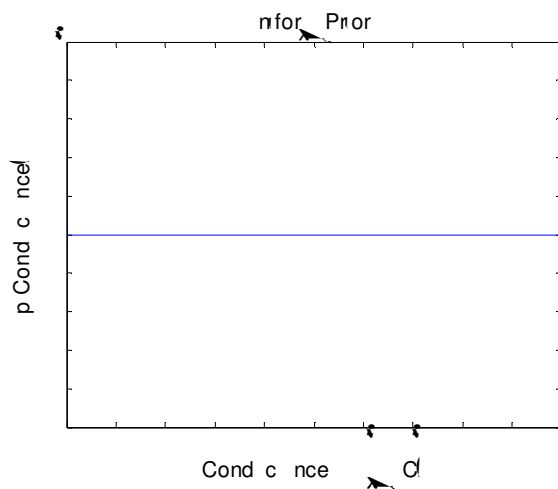






# Bayesian Inference

From the condition we find the effective  
conductance from the ring resonator in the  
condition



No error range  
of the  
order of  
for error  
prior



# Current Status

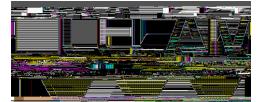


( e ing e FEM, POD, p r e n d o d e





# A Look For



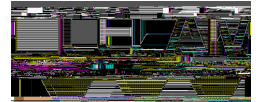
## Benefits of Automation

repair repair design conditionally  
 program engineering methods  
 experience reference from one  
 pre-repair new evidence-based  
 design and construction  
 operation and re-configuration  
 produce the desired repair experience  
 direction of reference and  
 high degree of confidence





# A Look For the Road



Needed



Once the procedure for determining the overall system architecture is gone for optimizing the production of the developed

Enterprise architecture of the entire process is done using typical repair configuration components Boeing and other production force

