



JAMS

JOINT ADVANCED MATERIALS & STRUCTURES
CENTER OF EXCELLENCE



JAMS 2017 Technical Review
March 21, 2017

- **Method Keyes**
 - Need to be defined in the damage mechanism fiber rates
- **Object**
 - Create a delamination and predict the rate of damage
- **Approach**
 - Experimental data change mechanism related damage behavior

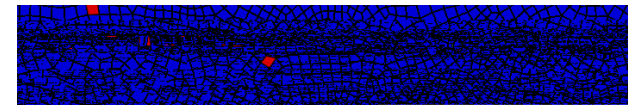
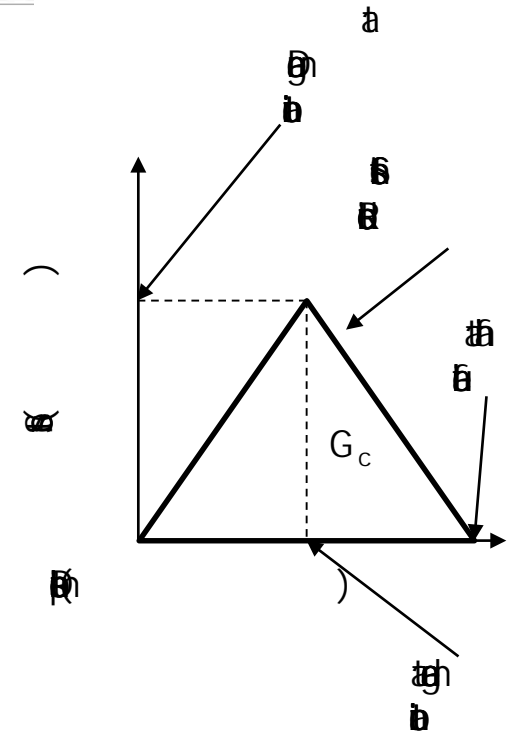








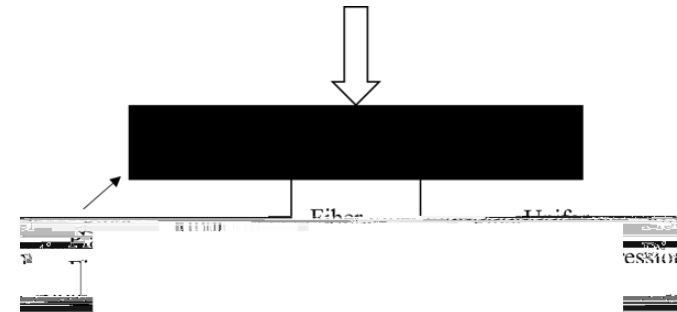
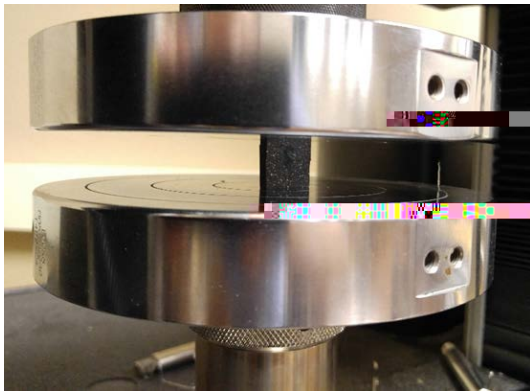
- ABAQUS as change
- Preferred a bar view
 - Face
 - Detail
 - 4-Point
- ABAQUS
- Preferred





Compression Specimens

- Measure the axial displacement behavior
- Range from
 - Age dependent materials
- Directed to create a large displacement
- Modulus to change behavior
- Two different
 - Mini-Ram TR50S/NB301
 - Begged trial





Uniform Compression: Damage Mechanisms



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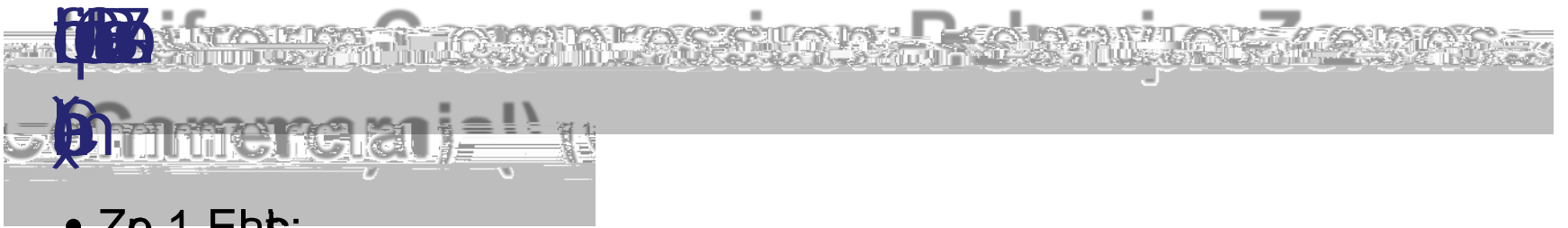
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- Three behaviors
- Variable magnitude
- Triaxial states

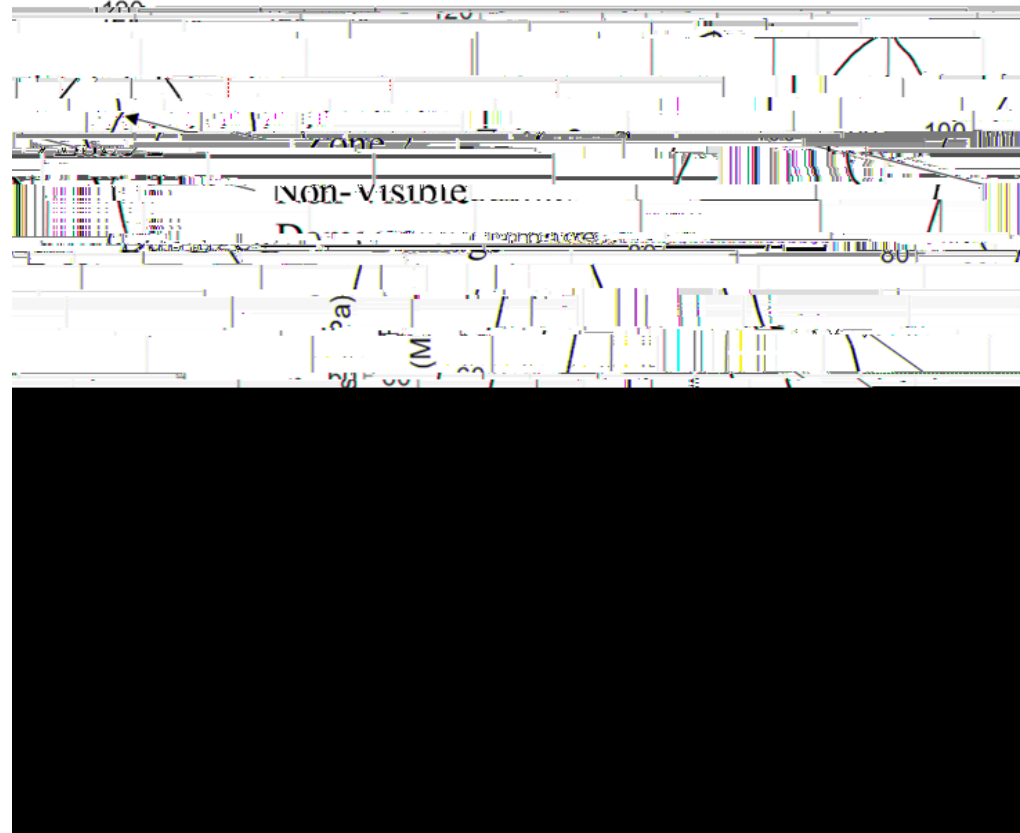
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- One behavior
- Spherically uniform
- Limited capacity





- Ze 1 Eab:
 - Uadg tacesbacker
adg ca
- Ze 2 Ne Vbe Dange:
 - Nbatcaed by
pstad pljoo
cachg
- Ze 3 Vbe Dange



Non

Non

- Uadg etad b
deembehav
- Hpsidg
asbsd
- Offetrdacem
ggetbsty





- **Mathematical Modeling**
- **Urban Systems**
 - Damage Mechanism
 - Settlement
- **Structural Systems**
 - Damage Mechanism
 - Vibration Study





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- Damage recovery

Pp2-2(p-3.pga</MCI86M)(710(6)3(a)-3.k/MCI8ed /7



- Validated to delay fab in real

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Compact Specimens: Variable-Notch Length (Tension)

- Tensile





- Created to define LEFM is applicable for crack
- Non length age: 19-63.5 m
- Large thickness before crack damage





- Significant difference in creep behavior between commercial and special
- Creep properties are critical



- Benefits Airb
– Better design for more accurate
efficiency and accuracy
- For Web





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