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A study of concrete slabs with steel wire mesh reinforcement under close-in explosive loads

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Highlights

- Concrete with fibre reinforcement shows better strength and ductility
- Steel wire mesh reinforced beam fails under shear in bending test
- Hybrid steel wire mesh and steel fibre reinforcement improves beam shear capacity
- Beam with hybrid reinforcement shows exceptional energy absorption capacity
- Slab with hybrid reinforcement survives 12 kg TNT detonation at 1.5 m standoff distance
- Numerical model confirms the charge shape effect in the blast tests



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