CFSRC Colloquium 2022 Program

all dates and times EDT (New York) GMT/UTC -4

Morning

time (EDT)	Monday, 17 October 2022 Speaker	Title	Tuesday, 18 October 2022 Speaker	Title	Wednesday, 19 October 2022 Speaker	Title
morning	**Session 1**: Innovations and Reliability, **Moderator**: Thomas Gernay		**Session 7**: Simulation and Innovations, **Moderator**: Cris Moen		**Session 13**: Connections and Composite Performance, **Moderator**: Matt Eathert	
8:00 AM	Ben Schafer	Welcome to the 2022 CFSRC Colloquium	Ahmed Hussain Ali Abdelrahman	Global Buckling Analysis of Tapered Steel Members with Nonsymmetric Sections via an Updated-Lagrangian Line-Element Formulation	Fatih Yilmaz	Behaviour of fasteners in sheathed cold-formed steel studs under push-out, pull-out and rotational actions
8:15 AM	Martin Horacek	Full scale static loading and fire resistance tests of LSF mezzanine systems	Ivan Lukačević	Numerical parametric study on corrugated web built-up beams with pinned end supports	Sherif A. Mourad	Structural Performance of Cold Formed Sections Portal Frames Eave Connections with Different Fasteners (Screws / Bolts)
8:30 AM	Xia Yan	Performance-based fire design applied to the cold-formed steel end walls of a warehouse metal building	Sheng Jin	Incorporating the shear and transverse extension effects in the global and distortional buckling modes	Andrea Rajić	Numerical study of cold-formed steel-concrete composite floor system with demountable shear connectors
8:45 AM	Adem Karasu	Analysis of roof live loads in industrial buildings	Astrid W. Fischer	Non-linear performance of topology optimized orthotropic bare steel deck diaphragms	Vlaho Žuvelek	Numerical study of the behavior of the bolted shear connection in cold-formed steel-concrete composite beam
9:00 AM	Rohola Rahnavard	Innovative concrete-filled cold-formed steel (CF-CFS) built-up columns	Cagan Dizdar	An Experimental and Analytical Study on Cold Formed Steel Floor Trusses with Bare and Concrete Filled Compression Chords	Sheila Ariana	Cyclic performance of fiber-cement-board cold-formed steel connections with varying edge distance
9:15 AM		break		break		break
	Session 2: Members, **Moderator**: Kara Peterman		**Session 8**: Innovations and Seismic, **Moderator**: Tara Hutchinson		**Session 14**: Shear Walls, **Moderator**: Colin Rogers	
9:30 AM	Viorel Ungureanu	Experimental study on the buckling resistance of cold-formed steel back-to-back plain and lipped channels in bending	Gusella Federico	Dynamic identification of selective steel storage pallet rack	Mohammed Eladly	Assessment of AISI-S400 deflection equation for cold-formed steel framed shear walls
9:45 AM	Qadir Sangar	Influences of cold working on tensile and bending strength of cold roll formed steel sections contain complex folded-in stiffeners	Victoria Ding	Experimental Tests on Stability of Cylindrical Shells Under Combined Bending and Torsion	Shahabeddin Torabian	Application of concrete-filled chord studs in cold-formed steel shear walls
10:00 AM	Zhanjie Li	Development and Validation for Member-Level Analysis-Based Testing	Hollis L. Caswell V	Cold-formed steel profiled decks topped with cementitious structural panels to enable fast floor construction of residential buildings	Hruthik Yelmagandla	Behavior and Strength of Cold-Formed Steel Framed Shear Walls Sheathed by MgO Board
10:15 AM	Sandor Adany	Numerical studies on the shift of centroid in cold-formed steel members due to local-plate and distortional buckling	Jiachen (Charlie) Zhang	Seismic Analysis of the 10-Story CFS-NHERI Building	Ghaith Alshamsi	Experimental and Numerical Investigation of an innovative, high capacity cold-formed steel shear wall
10:30 AM	Joshua A Schultz	Experimental Performance of Cold Form Flexural Members Under Distortional Buckling	Amanpreet Singh	Structural Design Narrative of the CFS-NHERI 10-story Test Building for Multi-dimensional Shake Table Testing	Zhidong Zhang	Effects of Modeling Decisions on the Lateral Performance of Cold-Formed Steel Framed Walls
10:45 AM				break		break
11:00 AM	**Breakout and Networking Sessions organized by CFSRC**		**Session 9**: Design Innovations, **Moderator**: Mazdak Tootkaboni — Hélder D. Craveiro	Design of cold-formed steel battened built-up columns	**Session 15**: High Strength Steels and Closing, **Moderator**: Ben Schafer — Viktoria Detkin	Strength of K-Type of Joint made of S700
	Session 3: Innovations, **Moderator**: Michael Seek					
11:15 AM	Burcu Guldur Erkal	Determination of Geometric Imperfections via 3D Data Processing	Cheng Yu	Flexible Strength of Cold-Formed Steel Joist with Stiffened Web Holes	Hyeyoung Koh	Calibration and validation of the hole-drilling method to measure residual stresses in advanced high-strength cold-formed steel members
11:30 AM	Marwan Khashaba	Investigation of the buckling behavior of pinned pinned hat-shaped members using newly introduced software OpenFSM	Jon-Paul Cardin	Overview of Updated AISI Standards	Chu Ding	Structural Behaviors Of Advanced High Strength Steel: Ductility, Connections, Members
11:45 AM	Cristopher D.Moen	An open-source cold-formed steel connection test database to support future data models	Thomas Sputo	Consolidated SDI Standard for Steel Deck	Ben Schafer	Announcement of Student Awards and Closing
12:00 PM	Lanyi Zhang	Structural Analysis in Virtual Reality for Education with BMLY	Glauz, Robert S.	Direct Strength Method: A Fresh New Appearance		

Evening

time (EDT)	Monday, 17 October 2022 Speaker	Title	Tuesday, 18 October 2022 Speaker	Title
evening	**Session 4**: Members and Design, **Moderator**: Zhanjie Li		**Session 10**: Simulation and Innovation, **Moderator**: Cheng Yu	
7:00 PM	Hai-Ting Li	New web crippling provision in SEI/ASCE 8 for cold-formed stainless steel square and rectangular hollow sections	Liang Chen	Numerical Implementation of GMNIA for Steel Frame with Nonsymmetric Sections
7:15 PM	Zhehang CHEN	Yield Models for use in DSM Localised Loading Design of Hat Sections	Xiaoyan Sun	A stochastic imperfection simulation method from high-fidelity measurements on cold-formed steel studs
7:30 PM	Akshay Mangal Mahar	Direct Strength Method Based Design of Cold-Formed Steel Built-Up Columns: Challenges and Solutions	Yecheng Dai	Moment capacity of cold-formed steel channel beams with edge-stiffened holes by machine learning
7:45 PM	Duy Khanh PHAM	The Use of Average Bending Moments in New Explicit DSM for Bending-Shear Interaction in Cold- formed Steel Channels	M. Adil Dar	Web crippling response of cold-formed ultra-high strength steel lipped channel sections
8:00 PM	Zhiyuan Fang	Structural behavior of cold-formed steel channel sections with edge-stiffened and un-stiffened holes under axial compression: numerical simulations, deep learning, and proposed design equations	Yu Xia	Numerical study on residual stresses in press-braked advanced high-strength cold-formed steel angles by finite element simulation
8:15 PM		break		break
	Session 5: Lateral Systems and Bulit-Up Members, **Moderator**: Sanjay Arwade		**Session 11**: Members, **Moderator**: Hannah Blum	
8:30 PM	Hengyun Zhang	Early Warning System for Load Distribution in Automated Warehouse Based on Seismic Safety	Liusi Dai	Ductile fracture behavior of Q355 cold-formed thin-walled steel flat and corner materials under monotonic loading
8:45 PM	Shen Liu	Lateral performance of an innovative cold-formed steel shear wall system reinforced by frame	Sivaganesh Selvaraj	Sheathing Braced Design of CFS Studs using Direct Stiffness-Strength Method Design
9:00 PM	Wu Fu-Wei	Seismic Performance Evaluation of Steel-sheathed Cold-formed Steel Trussed Shear Walls	Shaokuai Wang	Experimental investigation of closed built-up sections using four cold-formed steel open sections under axial and eccentric loading
9:15 PM	Mahendrakumar Madhavan	Design of Cold-Formed Steel Built-Up Closed Section Columns - Modified Local Slenderness Equation	Dipti Ranjan Sahoo	Axial response of cold-formed steel closed built-up columns composed of unstiffened channels
9:30 PM		break		break
	Session 6: Fire and Elevated Temperature, **Moderator**: Ben Schafer		**Session 12**: Connections, **Moderator**: Ben Schafer	
9:45 PM	Waibhaw Kumar	Incompetence of current fire standard to predict design reduction factors for cold-formed steels	Ya-Qian Wang	Fatigue Performance of Shear Connections between CFS Sheets using Self-Tapping Screws and Rivets
10:00 PM	Mahendran Mahen	Predictive equations for the capacity reduction of CFS screwed and bolted connections at elevated temperatures	Adeline Ng	The behavior of cold-formed steel and Belian hardwood self-tapping screw connections
10:15 PM	Vy Son Tung	Experimental study of load-bearing LSF wall panels made of built-up CFS channel studs at ambient and elevated temperatures	Viet Binh PHAM	Block Shear Strength and Structural Behaviour of Cold-Formed Steel Staggered Hole Bolted Connections