Stanford

# Gregory Deierlein

John A. Blume Professor in the School of Engineering

Civil and Environmental Engineering

### CONTACT INFORMATION


- **Administrator**

  Racquel Hagen - Administrative Associate

  **Email** racquelh@stanford.edu

  **Tel** (650) 723-4150


## Bio

### BIO

Deierlein's research focuses on improving limit states design of constructed facilities through the development and application of nonlinear structural analysis methods and performance-based design criteria. Recent projects include the development and application of strength and stiffness degrading models to simulate steel and reinforced concrete structures, seismic design and behavior of composite steel-concrete buildings, analysis of inelastic torsional-flexural instability of steel members, and a fracture mechanics investigation of seismically designed welded steel connections.

### ACADEMIC APPOINTMENTS

- Professor, Civil and Environmental Engineering

### ADMINISTRATIVE APPOINTMENTS

- Director, John A. Blume Earthquake Engineering Center, (2002- present)

### HONORS AND AWARDS

- Honorary Member, Earthquake Engineering Research Institute (2023)
- Honorary Member, Structural Engineers Association of Northern California (2022)
- Distinguished Member, American Society of Civil Engineers (2019)
- Shortridge Hardesty Award, American Society of Civil Engineers (2018)
- Academy of Distinguished Alumni, Department of Civil and Environmental Engineering, UC Berkeley (2016)
- Distinguished Lectureship, Earthquake Engineering Research Institute (2016)
- Krawinkler Award, Structural Engineers Association of Northern California (2016)
- Lifetime Achievement Award, American Institute of Steel Construction (2016)
- Mosseiff Award, American Society of Civil Engineers (2016)
- Academy of Distinguished Alumni, Department of Civil and Environmental Engineering, UT Austin (2014)
- Earthquake Spectra - Outstanding Paper Award, Earthquake Engineering Research Institute (2013, 2009)
- Elected Member, National Academy of Engineering (2013)

- Breakthrough Award, Popular Mechanics (2010)
- Top 25 Newsmakers of 2009, Engineering News-Record (2009)
- Norman Medal, American Society of Civil Engineers (2008, 2002, 1994)
- Raymond Reese Research Prize, American Society of Civil Engineers (2003, 1991)
- Special Achievement Award, American Institute of Steel Construction (2003)
- State-of-the-Art Award, American Society of Civil Engineers (2000,1995)
- Huber Research Prize, American Society of Civil Engineers (2000)

### BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, Board of Directors, Earthquake Engineering Research Institute (2016 - 2020)
- Member, National Academy of Engineering (2013 - present)
- Member, Board of Trustees, Geohazards International (2016 - present)
- Member, Specification Committee, American Institute of Steel Construction (1992 - present)

### PROFESSIONAL EDUCATION

- PhD, University of Texas, Austin (1988)
- MS, University of California at Berkeley (1982)
- BS, Cornell University (1981)

## Teaching

### COURSES

**2025-26**

- Advanced Structural Analysis: CEE 280 (Aut)
- Structural Design: CEE 182 (Win)

**2024-25**

- Advanced Structural Analysis: CEE 280 (Aut)

**2023-24**

- Advanced Structural Analysis: CEE 280 (Aut)
- Nonlinear Structural Analysis: CEE 282 (Win)
- Seismic Design Workshop: CEE 83 (Aut)
- Structural Design: CEE 182 (Win)

**2022-23**

- Advanced Structural Analysis: CEE 280 (Aut)
- Nonlinear Structural Analysis: CEE 282 (Win)
- Structural Design: CEE 182 (Win)

### STANFORD ADVISEES

**Doctoral Dissertation Reader (AC)**

Bryam Astudillo Carpio

**Doctoral Dissertation Advisor (AC)**

Mia Lochhead, Juan Valois Martinez

**Master's Program Advisor**

Emilio Cervantes, Nicholas Daal, Fang Fang, Madelyn Grant, Faatira Azzahra Scientiva Kurniapramono, Angelina Lee, Hana Thibault, Yu Xin

**Doctoral (Program)**

Carmen Andrade von Hillebrandt, Christianos Burlotos, Mia Lochhead, Juan Valois Martinez

## Publications

### PUBLICATIONS

- **Systematic Training and Validation of Parameterized Probabilistic Learning on Manifolds Surrogate Model for Seismic Performance Assessment of Highway Bridges** *EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS*
  Lee, J., Lochhead, M., Zhong, K., Deierlein, G. G.
  2025
- **An open-source simulation platform to support and foster research collaboration in natural hazards engineering** *FRONTIERS IN BUILT ENVIRONMENT*
  Zsarnoczay, A., Deierlein, G. G., McKenna, F., Schoettler, M., Yi, S., Cetiner, B., Satish, A., Zhao, J., Bonus, J., Melaku, A. F., Naeimi, S., Arduino, P., Davidson, et al
  2025; 11
- **Development and validation of a model to calculate full-range response of bolted angle cleats in bending** *JOURNAL OF CONSTRUCTIONAL STEEL RESEARCH*
  Zhou, J., Yan, S., Rasmussen, K. J. R., Deierlein, G. G.
  2025; 228
- **Digitally Augmented Database of Fracture-Critical Steel Beam-to-Column Connection Tests** *JOURNAL OF STRUCTURAL ENGINEERING*
  Galvis, F. A., Deierlein, G. G., Yen, W., Molina Hutt, C., Francisco Correal, J.
  2025; 151 (4)
- **Simulation of longitudinal reinforcing steel bar fracture in reinforced concrete walls** *BULLETIN OF EARTHQUAKE ENGINEERING*
  Navarro Carranza, J., Deierlein, G. G., Zhong, K.
  2024
- **Database of tall pre-Northridge steel moment frames for earthquake performance evaluations** *EARTHQUAKE SPECTRA*
  Galvis, F. A., Deierlein, G. G., Hutt, C.
  2024; 40 (4): 2917-2946
- **Generalised component method for bolted bearing type connections incorporating block shear failure** *JOURNAL OF CONSTRUCTIONAL STEEL RESEARCH*
  Zhou, J., Rasmussen, K. J. R., Yan, S., Deierlein, G. G., Zhang, H.
  2024; 220
- **Measurement of strengths and fracture initiation strains of weld metal and HAZ in steel joints using miniature coupons** *ENGINEERING FRACTURE MECHANICS*
  Liu, X., Yan, S., Zhou, J., Rasmussen, K. J. R., Deierlein, G. G.
  2024; 307
- **Generalised component method for bolted bearing type connections** *STEEL CONSTRUCTION-DESIGN AND RESEARCH*
  Zhou, J., Yan, S., Zhang, H., Rasmussen, K. J. R., Deierlein, G. G.
  2024
- **Elevated collapse risk based on decaying aftershock hazard and damaged building fragilities** *EARTHQUAKE SPECTRA*
  Hulsey, A. M., Galvis, F. A., Baker, J. W., Deierlein, G. G.
  2024; 40 (1): 674-704
- **Calibrating an adaptive cohesive zone model to simulate ductile crack propagation in structural steel under cyclic loading** *FATIGUE & FRACTURE OF ENGINEERING MATERIALS & STRUCTURES*

Ziccarelli, A., Kanvinde, A., Deierlein, G.
2023

- **Response spectrum method for structures subjected to vertical ground motions: Absolute acceleration method** *EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS*
  Acosta, A. A., Miranda, E., Deierlein, G. G.
  2023
- **Simulation-based methodology to identify damage indicators and safety thresholds for post-earthquake evaluation of structures** *EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS*
  Galvis, F. A., Hulsey, A. M., Baker, J. W., Deierlein, G. G.
  2023
- **Surrogate modeling of structural seismic response using probabilistic learning on manifolds** *EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS*
  Zhong, K., Navarro, J. G., Govindjee, S., Deierlein, G. G.
  2023
- **Cyclic adaptive cohesive zone model to simulate ductile crack propagation in steel structures due to ultra-low cycle fatigue** *FATIGUE & FRACTURE OF ENGINEERING MATERIALS & STRUCTURES*
  Ziccarelli, A., Kanvinde, A., Deierlein, G.
  2023
- **Community Perspectives on Simulation and Data Needs for the Study of Natural Hazard Impacts and Recovery** *NATURAL HAZARDS REVIEW*
  Zsarnoczay, A., Deierlein, G. G., Williams, C. J., Kijewski-Correa, T. L., Esnard, A., Lowes, L. N., Johnson, L.
  2023; 24 (1)
- **A thermodynamically consistent finite strain phase field approach to ductile fracture considering multi-axial stress states** *COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING*
  Vajari, S., Neuner, M., Arunachala, P., Ziccarelli, A., Deierlein, G., Linder, C.
  2022; 400
- **Experimental investigation of the effect of Lode angle on fracture initiation of steels** *ENGINEERING FRACTURE MECHANICS*
  Liu, X., Yan, S., Rasmussen, K. J. R., Deierlein, G. G.
  2022; 271
- **High-resolution post-earthquake recovery simulation: Impact of safety cordons** *EARTHQUAKE SPECTRA*
  Hulsey, A. M., Baker, J. W., Deierlein, G. G.
  2022; 38 (3): 2061-2087
- **Verification of void growth-based exponential damage function for ductile crack initiation over the full range of stress triaxialities** *ENGINEERING FRACTURE MECHANICS*
  Liu, X., Yan, S., Rasmussen, K. J. R., Deierlein, G. G.
  2022; 269
- **Site-specific adjustment framework for incremental dynamic analysis (SAF-IDA)** *Earthquake Spectra*
  Zhong, K., Chandramohan, R., Baker, J. W., Deierlein, G. G.
  2022
- **Integration of an adaptive cohesive zone and continuum ductile fracture model to simulate crack propagation in steel structures** *ENGINEERING FRACTURE MECHANICS*
  Pericoli, V., Lao, X., Ziccarelli, A., Kanvinde, A., Deierlein, G.
  2021; 258
- **A stress-weighted ductile fracture model for steel subjected to Ultra Low Cycle Fatigue** *ENGINEERING STRUCTURES*
  Smith, C., Ziccarelli, A., Terashima, M., Kanvinde, A., Deierlein, G.
  2021; 245
- **Influence of High-Strength Reinforcing Bars on Seismic Safety of Concrete Frames** *ACI STRUCTURAL JOURNAL*
  Zhong, K., Ghannoum, W. M., Deierlein, G. G.

2021; 118 (5): 299-311

- **Generalized modified modal superposition procedure for seismic design of rocking and pivoting steel spine systems** *JOURNAL OF CONSTRUCTIONAL STEEL RESEARCH*
  Martin, A., Deierlein, G. G.
  2021; 183
- **A Cloud-Enabled Application Framework for Simulating Regional-Scale Impacts of Natural Hazards on the Built Environment** *FRONTIERS IN BUILT ENVIRONMENT*
  Deierlein, G. G., McKenna, F., Zsarnoczay, A., Kijewski-Correa, T., Kareem, A., Elhaddad, W., Lowes, L., Schoettler, M. J., Govindjee, S.
  2020; 6
- **Tall building performance-based seismic design using SCEC broadband platform site-specific ground motion simulations** *EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS*
  Zhong, K., Lin, T., Deierlein, G. G., Graves, R. W., Silva, F., Luco, N.
  2020
- **Parametric Study of Seismic Isolation Properties for Light-Frame Houses** *JOURNAL OF STRUCTURAL ENGINEERING*
  Jampole, E., Swensen, S., Miranda, E., Deierlein, G. G.
  2020; 146 (10)
- **Probabilistic Space- and Time-Interaction Modeling of Mainshock Earthquake Rupture Occurrence** *BULLETIN OF THE SEISMOLOGICAL SOCIETY OF AMERICA*
  Ceferino, L., Kiremidjian, A., Deierlein, G.
  2020; 110 (5): 2498–2518
- **Effective plans for hospital system response to earthquake emergencies.** *Nature communications*
  Ceferino, L., Mitrani-Reiser, J., Kiremidjian, A., Deierlein, G., Bambaren, C.
  2020; 11 (1): 4325
- **Structural topology optimization of tall buildings for dynamic seismic excitation using modal decomposition** *ENGINEERING STRUCTURES*
  Martin, A., Deierlein, G. G.
  2020; 216
- **Efficient intensity measures and machine learning algorithms for collapse prediction of tall buildings informed by SCEC CyberShake ground motion simulations** *EARTHQUAKE SPECTRA*
  Bijelic, N., Lin, T., Deierlein, G. G.
  2020; 36 (3): 1188–1207
- **Predicting earthquake-induced sliding displacements using effective incremental ground velocity** *EARTHQUAKE SPECTRA*
  Jampole, E., Miranda, E., Deierlein, G. G.
  2020; 36 (1): 378–99
- **Quantification of the Influence of Deep Basin Effects on Structural Collapse Using SCEC CyberShake Earthquake Ground Motion Simulations** *EARTHQUAKE SPECTRA*
  Bijelic, N., Lin, T., Deierlein, G. G.
  2019; 35 (4): 1845–64
- **Evaluation of Building Collapse Risk and Drift Demands by Nonlinear Structural Analyses Using Conventional Hazard Analysis versus Direct Simulation with CyberShake Seismograms** *BULLETIN OF THE SEISMOLOGICAL SOCIETY OF AMERICA*
  Bijelic, N., Lin, T., Deierlein, G. G.
  2019; 109 (5): 1812–28
- **Proposed Updates to the ASCE 41 Nonlinear Modeling Parameters for Wide-Flange Steel Columns in Support of Performance-Based Seismic Engineering** *JOURNAL OF STRUCTURAL ENGINEERING*
  Lignos, D. G., Hartloper, A. R., Elkady, A., Deierlein, G. G., Hamburger, R.
  2019; 145 (9)
- **Comparative risk-based seismic assessment of 1970s vs modern tall steel moment frames** *JOURNAL OF CONSTRUCTIONAL STEEL RESEARCH*
  Hutt, C., Rossetto, T., Deierlein, G. G.

2019; 159: 598–610

- **Capacity Design Procedure for Rocking Braced Frames Using Modified Modal Superposition Method** *JOURNAL OF STRUCTURAL ENGINEERING*
  Martin, A., Deierlein, G. G., Ma, X.
  2019; 145 (6)
- **Development and Testing of a Friction/Sliding Connection to Improve the Seismic Performance of Gypsum Partition Walls** *EARTHQUAKE SPECTRA*
  Araya-Letelier, G., Miranda, E., Deierlein, G.
  2019; 35 (2): 653–77
- **Discussion of "Experimental Evaluation of Single-Bolted Lap Joints at Elevated Temperatures" by Erica C. Fischer, Amit H. Varma, and Qiaqia Zhu** *JOURNAL OF STRUCTURAL ENGINEERING*
  Teh, L. H., Deierlein, G. G.
  2018; 144 (12)
- **Effective Incremental Ground Velocity for Estimating the Peak Sliding Displacement of Rigid Structures to Pulse-Like Earthquake Ground Motions** *JOURNAL OF ENGINEERING MECHANICS*
  Jampole, E., Miranda, E., Deierlein, G.
  2018; 144 (12)
- **Regional Multiseverity Casualty Estimation Due to Building Damage Following a Mw 8.8 Earthquake Scenario in Lima, Peru** *EARTHQUAKE SPECTRA*
  Ceferino, L., Kiremidjian, A., Deierlein, G.
  2018; 34 (4): 1739–61
- **Probabilistic Model for Regional Multiseverity Casualty Estimation due to Building Damage Following an Earthquake** *ASCE-ASME JOURNAL OF RISK AND UNCERTAINTY IN ENGINEERING SYSTEMS PART A-CIVIL ENGINEERING*
  Ceferino, L., Kiremidjian, A., Deierlein, G.
  2018; 4 (3)
- **Validation of the SCEC Broadband Platform simulations for tall building risk assessments considering spectral shape and duration of the ground motion** *EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS*
  Bijelic, N., Lin, T., Deierlein, G. G.
  2018; 47 (11): 2233–51
- **Integrating visual damage simulation, virtual inspection, and collapse capacity to evaluate post-earthquake structural safety of buildings** *EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS*
  Burton, H. V., Deierlein, G. G.
  2018; 47 (2): 294–310
- **Measuring the Impact of Enhanced Building Performance on the Seismic Resilience of a Residential Community** *EARTHQUAKE SPECTRA*
  Burton, H. V., Deierlein, G., Lallemant, D., Singh, Y.
  2017; 33 (4): 1347–67
- **Calibration of Continuum Cyclic Constitutive Models for Structural Steel Using Particle Swarm Optimization** *JOURNAL OF ENGINEERING MECHANICS*
  Smith, C., Kanvinde, A., Deierlein, G.
  2017; 143 (5)
- **A local criterion for ductile fracture under low-triaxiality axisymmetric stress states** *ENGINEERING FRACTURE MECHANICS*
  Smith, C., Kanvinde, A., Deierlein, G.
  2017; 169: 321-335
- **Estimation and impacts of model parameter correlation for seismic performance assessment of reinforced concrete structures** *STRUCTURAL SAFETY*
  Gokkaya, B. U., Baker, J. W., Deierlein, G. G.
  2017; 69: 68–78
- **Calibration of Model to Simulate Response of Reinforced Concrete Beam-Columns to Collapse** *ACI STRUCTURAL JOURNAL*
  Haselton, C. B., Liel, A. B., Taylor-Lange, S. C., Deierlein, G. G.

2016; 113 (6): 1141-1152

- **Rocking Spine for Enhanced Seismic Performance of Reinforced Concrete Frames with Infills** *JOURNAL OF STRUCTURAL ENGINEERING*
  Burton, H. V., Deierlein, G. G., Mar, D., Mosalam, K. M., Rodgers, J., Gunay, S.
  2016; 142 (11)
- **Full-Scale Dynamic Testing of a Sliding Seismically Isolated Unibody House** *EARTHQUAKE SPECTRA*
  Jampole, E., Deierlein, G., Miranda, E., Fell, B., Swensen, S., Acevedo, C.
  2016; 32 (4): 2245-2270
- **Seismic Loss and Downtime Assessment of Existing Tall Steel-Framed Buildings and Strategies for Increased Resilience** *JOURNAL OF STRUCTURAL ENGINEERING*
  Hutt, C. M., Almufti, I., Willford, M., Deierlein, G.
  2016; 142 (8)
- **Quantifying the impacts of modeling uncertainties on the seismic drift demands and collapse risk of buildings with implications on seismic design checks** *EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS*
  Gokkaya, B. U., Baker, J. W., Deierlein, G. G.
  2016; 45 (10): 1661-1683
- **Framework for Incorporating Probabilistic Building Performance in the Assessment of Community Seismic Resilience** *JOURNAL OF STRUCTURAL ENGINEERING*
  Burton, H. V., Deierlein, G., Lallemant, D., Lin, T.
  2016; 142 (8)
- **Impact of hazard-consistent ground motion duration in structural collapse risk assessment** *EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS*
  Chandramohan, R., Baker, J. W., Deierlein, G. G.
  2016; 45 (8): 1357-1379
- **Quantifying the Influence of Ground Motion Duration on Structural Collapse Capacity Using Spectrally Equivalent Records** *EARTHQUAKE SPECTRA*
  Chandramohan, R., Baker, J. W., Deierlein, G. G.
  2016; 32 (2): 927-950
- **Behavior of Screw and Adhesive Connections to Gypsum Wallboard in Wood and Cold-Formed Steel-Framed Wallettes** *JOURNAL OF STRUCTURAL ENGINEERING*
  Swensen, S., Deierlein, G. G., Miranda, E.
  2016; 142 (4)
- **Design Concepts for Controlled Rocking of Self-Centering Steel-Braced Frames** *JOURNAL OF STRUCTURAL ENGINEERING*
  Eatherton, M. R., Ma, X., Krawinkler, H., Mar, D., Billington, S., Hajjar, J. F., Deierlein, G. G.
  2014; 140 (11)
- **Quasi-Static Cyclic Behavior of Controlled Rocking Steel Frames** *JOURNAL OF STRUCTURAL ENGINEERING*
  Eatherton, M. R., Ma, X., Krawinkler, H., Deierlein, G. G., Hajjar, J. F.
  2014; 140 (11)
- **Simulation of Seismic Collapse in Nonductile Reinforced Concrete Frame Buildings with Masonry Infills** *JOURNAL OF STRUCTURAL ENGINEERING*
  Burton, H., Deierlein, G.
  2014; 140 (8)
- **Probabilistic Formulation of the Cyclic Void Growth Model to Predict Ultralow Cycle Fatigue in Structural Steel** *JOURNAL OF ENGINEERING MECHANICS*
  Myers, A. T., Kanvinde, A. M., Deierlein, G. G., Baker, J. W.
  2014; 140 (6)
- **Component model calibration for cyclic behavior of a corrugated shear wall** *THIN-WALLED STRUCTURES*
  Vigh, L. G., Liel, A. B., Deierlein, G. G., Miranda, E., Tipping, S.
  2014; 75: 53-62

- **Component Model Calibration for Cyclic Behaviour of a Corrugated Shear Wall** *Thin Walled Structures*
  Vigh, L., G., Deierlein, G., G., Miranda, E., Liel, A., B.
  2014; 75: 53-62
- **Cost-Benefit Evaluation of Seismic Risk Mitigation Alternatives for Older Concrete Frame Buildings** *EARTHQUAKE SPECTRA*
  Liel, A. B., Deierlein, G. G.
  2013; 29 (4): 1391-1411
- **Seismic performance assessment of steel corrugated shear wall system using non-linear analysis** *JOURNAL OF CONSTRUCTIONAL STEEL RESEARCH*
  Vigh, L. G., Deierlein, G. G., Miranda, E., Liel, A. B., Tipping, S.
  2013; 85: 48-59
- **A Probabilistic Formulation of the Cyclic Void Growth Model to Predict Ultra-Low Cycle Fatigue in Structural Steel** *J. Eng. Mech., 10.1061/(ASCE)EM.1943-7889.0000728*
  Myers, A., Kanvinde, A., Deierlein, G., Baker, J.
  2013
- **Cost-Benefit Evaluation of Seismic Mitigation Alternatives for Older Reinforced Concrete Frame Buildings** *Earthquake Spectra*
  Liel, A., B., Deierlein, G., G.
  in press.2013: 1
- **Quasi-Static Cyclic Behavior of Controlled Rocking Steel Frames** *J. Struct. Eng., accepted for publication*
  Eatherton, M., R., Ma, X., Krawinkler, H., Deierlein, G., G., Hajjar, J., F.
  2013
- **Simulation of Seismic Collapse in Non-Ductile Reinforced Concrete Frame Buildings with Masonry Infills** *J. Struct. Eng., 10.1061/(ASCE)ST.1943-541X.0000921*
  Burton, H., Deierlein, G.
  2013
- **Seismic Performance Assessment of a Steel Corrugated Shear Wall System Using Non-linear Analysis** *Jl. of Constr. Steel Research*
  Vigh, L., G., Deierlein, G., G., Miranda, E., Liel, A., B., Tipping, S.
  2013; 85: 48-59
- **Using Collapse Risk Assessments to Inform Seismic Safety Policy for Older Concrete Buildings** *EARTHQUAKE SPECTRA*
  Liel, A. B., Deierlein, G. G.
  2012; 28 (4): 1495-1521
- **Expected earthquake damage and repair costs in reinforced concrete frame buildings** *EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS*
  Ramirez, C. M., Liel, A. B., Mitrani-Reiser, J., Haselton, C. B., Spear, A. D., Steiner, J., Deierlein, G. G., Miranda, E.
  2012; 41 (11): 1455-1475
- **Seismic Assessment of Typical 1970's Tall Steel Moment Frame Buildings in Downtown San Francisco**
  Ibrahim, A., Molina-Hutt, C., Willford, M., Deierlein, G., G.
  2012
- **Toward a Performance-Based Design Framework for Self-Centering Rocking Braced-Frame Spine systems**
  Eatherton, M., R., Deierlein, G., G., Ma, X., Krawinkler, H., Hajjar, J., F.
  2012
- **Seismic Retrofit of Non-Ductile Reinforced Cocnrete Infill Frame Building Using Rocking Spines**
  Burton, H., Deierlein, G., G.
  2012
- **Preliminary Assessment of Ground Motion Duration Effects on Structural Collapse**
  Foschaar, J., C., Baker, J., W., Deierlein, G., G.
  2012

- **On the Role of Nonlinear Analysis in the Seismic Performance Assessment of Buildings**
  Deierlein, G., G.
  2012
- **Novel Design Methods for Improved Damage Resistance of Light-Weight Framed Structures**
  Swensen, S., Miranda, M., Deierlein, G., G.
  2012
- **Towards Creating Earthquake-Safe Communities: Seismic Retrofit of an Adobe School Building in Rural Peru Using Geomesh**
  Cedillos, V., Tucker, B., Blondet, M., Carpio, J., Quispe, J., Rondon, S., Deierlein, Gregory, G.
  2012
- **Performance-Based Earthquake Engineering: Innovations for Resilient Buildings and Communities** *Invited Plenary Lecture for Performance-Based and Life-Cycle Structural Engineering, Hong Kong*
  Deierlein, G., G.
  2012
- **Design Features and Criteria For Controlled Rocking Braced-Frame Systems**
  Deierlein, G., G., Eatherton, M., Ma, X., Hajjar, J., F.
  2012
- **Seismic Collapse Safety of Reinforced Concrete Buildings. II: Comparative Assessment of Nonductile and Ductile Moment Frames** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Liel, A. B., Haselton, C. B., Deierlein, G. G.
  2011; 137 (4): 492-502
- **Seismic Collapse Safety of Reinforced Concrete Buildings. I: Assessment of Ductile Moment Frames** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Haselton, C. B., Liel, A. B., Deierlein, G. G., Dean, B. S., Chou, J. H.
  2011; 137 (4): 481-491
- **Accounting for Ground-Motion Spectral Shape Characteristics in Structural Collapse Assessment through an Adjustment for Epsilon** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Haselton, C. B., Baker, J. W., Liel, A. B., Deierlein, G. G.
  2011; 137 (3): 332-344
- **Experimental Investigation of Shear Transfer in Exposed Column Base Connections** *ENGINEERING JOURNAL-AMERICAN INSTITUTE OF STEEL CONSTRUCTION*
  Gomez, I. R., Kanvinde, A. M., Deierlein, G. G.
  2011; 48 (4): 245-264
- **Earthquake Resilient Steel Braced Frames with Controlled Rocking and Energy Dissipating Fuses** *Steel Construction: Design and Research*
  Deierlein, G., G., Ma, X., Eatherton, M., Hajjar, J., Krawinkler, H., Takeuchi, T.
  Wiley.2011: 171–175
- **Tohoku Pacific Ocean Earthquake and Tsunami: Quick observations from the PEER/EERI/GEER/Tsunami Field Investigation Team**
  Mahin, S., Deierlein, G., Mosqueda, G., Scawthorn, C., Youssef, H., Kramer, S.
  2011
- **Seismic Design, Simulation and Shake Table Testing of Self-Centering Braced Frame with Controlled Rocking and Energy Dissipating Fuses** *, J.A. Blume Earthquake Engrg. Center, TR 174, Stanford Universit*
  Ma, X., Krawinkler, H., Deierlein, G., G.
  2011
- **Earthquake Engineering and Research Needs in the Planning, Design, Construction and Operation of Buildings** *Grand Challenges in Earthquake Engineering Research: A Community Workshop Report, National Research Council, invited and reviewed keynote presentation*
  Deierlein, G., G.
  2011: 58-64
- **Capacity Design in Seismic Resistant Steel Buildings – A Reliability-Based Methodology to Establish Capacity- Design Factors** *Eurosteel 2011, Budapest, Paper A-0380*

Victorsson, V., K., Deierlein, G., G., Baker, J., W.
2011: 6

- **Assessing the Scale of Environmental Impacts from a Major California Earthquake Recovery**
  Burton, H., Deierlein, G., G., Lepech, M.
  2011
- **Shaking Table Test of Controlled Rocking Frames Using Multipurpose Testbed** *Eurosteel 2011, Budapest, Hungary, Paper A-0301*
  Takeuchi, T., Midorikawa, M., Kasai, K., Deierlein, G.
  2011: 6
- **Nonlinear Structural Analysis for Seismic Design: A Guide for Practicing Engineers** *NEHRP Seismic Design Technical Brief 4, NIST GCR 10-917-5*
  Deierlein, G., G., Reinhorn, A., M., Wilford, M., R.
  2011
- **NEES 2011 vision Report on Computational and Hybrid Simulation: Needs and Opportunities** *Committee on Simulation, Network for Earthquake Engineering Simulation*
  Deierlein, G., G., Arduino, P., Assimaki, D., Caicedo, J., Dyke, S., Hachem, M.
  2011
- **Local Cyclic Void Growth Criteria for Ductile Fracture Initiation in Steel Structures with Significant Yielding** *Eurosteel 2011, Budapest, Paper A-0380*
  Deierlein, G., G., Kanvinde, A., Myers, A., Fell, B.
  2011: 6
- **Earthquake Engineering Research Needs in the Planning, Design, Construction and Operation of Buildings** *Invited white paper and keynote presentation, NRC Workshop on Grand Challenges in Earthquake Engineering Research, Beckman Center*
  Deierlein, G., G.
  2011: 13
- **Calibration of the SMCS Criterion for Ductile Fracture in Steels: Specimen Size Dependence and Parameter Assessment** *JOURNAL OF ENGINEERING MECHANICS-ASCE*
  Myers, A. T., Kanvinde, A. M., Deierlein, G. G.
  2010; 136 (11): 1401-1410
- **Benefit-Cost Evaluation of Seismic Risk Mitigation in Existing Non-ductile Concrete Buildings** *Workshop on Advances in Performances-Based Earthquake Engineering*
  Deierlein, G., Liel, A.
  SPRINGER.2010: 341–348
- **Large-Scale Shaking Table Test of Steel Braced Frame with Controlled Rocking and Energy-Dissipating Fuses**
  Ma, X., Deierlein, G., G., Eatherton, M., Krawinkler, H., Hajjar, J., F., Takeuchi, T.
  2010
- **Chapter 32: Benefit-Cost Evaluation of Seismic Risk Mitigation in Existing Non-Ductile Concrete Buildings** *Advances in Performance- Based Earthquake Engineering*
  Deierlein, G., G., Liel, A., B.
  edited by Fardis, Springer, M.
  2010: 1
- **Seismic Resilience of Self-Centering Steel Braced Frames with Replaceable Energy-Dissipating Fuses – Part I: Large-Scale Cyclic Testing**
  Hajjar, J., Eatherton, M., Ma, X., Deierlein, G., G., Krawinkler, H., Billington, S., B.
  2010
- **Example Application of the FEMA P695 (ATC-63) Methodology for the Collapse Performance Evaluation of Reinforced Concrete Special Moment Frame Systems**
  Haselton, C., B., Liel, A., B., Deierlein, G., G.
  2010

- **Seismic Resilience of Self-Centering Steel Braced Frames with Replaceable Energy-Dissipating Fuses – Part II: E-Defense Shake Table Test**
  Deierlein, G., G., Ma, X., Hajjar, J., Eatherton, M., Krawinkler, H., Takeuchi, T.
  2010
- **Design and behavior of steel shear plates with openings as energy-dissipating fuses** *J.A. Blume Earthquake Engineering Center, TR 173, Stanford University*
  Ma, X., Borchers, E., Peña, A., Krawinkler, H., Billington, S., Deierlein, G.
  2010
- **Hybrid Simulation Testing of a Controlled Rocking Steel Braced Frame System**
  Eatherton, M., Hajjar, J., F., Deierlein, G., G., Ma, X., Krawinkler, H.
  2010
- **Hybrid Simulation Testing of a Controlled Rocking Steel Braced Frame System**
  Eatherton, M., Hajjar, J., Deierlein, G., G., Ma, X., Krawinkler, H.
  2010
- **Seismic Design and Behavior of Steel Frames with Controlled Rocking – Part II: Large Scale Shake Table Testing and System Collapse Analysis** *ASCE Structures Congress 2010*
  Ma, X., Eatherton, M., Hajjar, J., Krawinkler, H., Deierlein, G., G.
  2010: 10
- **Large-Scale Shaking Table Test of Steel Braced Frame with Controlled Rocking and Energy Dissipating Fuses**
  Ma, X., Deierlein, M., Krawinkler, H., Hajjar, J., Takeuchi, T., Kasai, K.
  2010
- **Nonlinear Analysis of Post-Tensioned Concrete Walls that Minimize Residual Drifts Under Seismic Loading**
  Ohmura, T., Deierlein, G., G.
  2010
- **Seismic Design and Behavior of Steel Frames with Controlled Rocking – Part I: Concepts and Quasi-Static Subassembly Testing** *ASCE Structures Congress 2010*
  Eatherton, M., Hajjar, J., Ma, X., Krawinkler, H., Deierlein, G., G.
  2010: 10
- **Modeling and Acceptance Criteria for Seismic Design and Analysis of Tall Buildings** *PEER/ATC Report 72-1, Applied Technology Council, Redwood City, CA*
  Malley, J., O., Deierlein, G., G., Krawinkler, H., Maffei, J.R., Pourzanjani, M., Wallace, J.
  2010: 242
- **Evaluation of the FEMA P-695 Methodology for Quantification of Building Seismic Performance Factors** *NIST GCR 10-917-8*
  Kircher, C., Deierlein, G., G., Hooper, J., Krawinkler, H., Mahin, S., Shing, B.
  2010: 268
- **ASCE-41 and FEMA-351 Evaluation of E-Defense Collapse Test** *EARTHQUAKE SPECTRA*
  Maison, B. F., Kasai, K., Deierlein, G.
  2009; 25 (4): 927-953
- **Effect of weld details on the ductility of steel column baseplate connections** *JOURNAL OF CONSTRUCTIONAL STEEL RESEARCH*
  Myers, A. T., Kanvinde, A. M., Deierlein, G. G., Fell, B. V.
  2009; 65 (6): 1366-1373
- **Experimental Investigation of Inelastic Cyclic Buckling and Fracture of Steel Braces** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Fell, B. V., Kanvinde, A. M., Deierlein, G. G., Myers, A. T.
  2009; 135 (1): 19-32
- **Preliminary Results of a Cost-Benefit Assessment of Replacing Seismically Vulnerable Non-Ductile Reinforced Concrete Frame Structures**
  Liel, A., B., Deierlein, G., G.
  2009

- **Why are large-scale experiments of structural components and systems needed?** *Invited Paper: First Joint Planning Meeting for the Second Phase of NEES/E-Defense Collaborative Research on Earthquake Engineering, PEER 2009/101, NSF Arlington, VA*
  Deierlein, G., G.
  2009: 3

- **Testing and Probablilistic Simulation of Ductile Fracture Initiation in Structural Steel Components and Weldments** *Blume Technical Report 170*
  Myers, A., T., Deierlein, G., G., Kanvinde, A.
  2009: 386

- **International Collaborations on the Seismic Design and Behavior of Composite RCS Moment Frames**
  Deierlein, G., G.
  2009

- **Important Issues and Suggested Best Practices in Simulating Structural Collapse Due to Earthquakes: Modeling Decisions, Model Calibration and Numerical Solution Algorithms**
  Haselton, C., B., Liel, A., B., Deierlein, G., G.
  2009

- **ATC 63 Project Team, FEMA P695, Federal Emergency Management Agency** *Quantification of Building Seismic Performance Factor*
  Deierlein, G., G.
  2009: 421

- **Seismically Resilient Steel Braced Frame Systems with Controlled Rocking and Energy Dissipating Fuses**
  Deierlein, G., G., Hajjar, J., Eatherton, M., Billington, S., Krawinkler, H., Ma, X.
  2009

- **Collaborative Research on Development of Innovative Steel Braced Frame Systems with Controlled Rocking and Replaceable Fuses**
  Deierlein, G., G., Ma, X., Eatherton, M., Krawinkler, H., Billington, S., Hajjar, J.
  2009

- **The Mw 7.6 Western Sumatra Earthquake of September, 30, 2009** *EERI Special Earthquake Report*
  Deierlein, G., G., Alexander, N., Cedillos, V., Comfort, L., Hart, T., Hausler, E.
  2009: 12

- **Engineering Challenges: Socio-economic considerations in earthquake engineering** *Invited Paper: First Joint Planning Meeting for the Second Phase of NEES/E-Defense Collaborative Research on Earthquake Engineering, PEER 2009/101, NSF Arlington, VA*
  Deierlein, G., G.
  2009: 3

- **Dynamic analysis based seismic performance quantification of steel corrugated shear wall system** *The Twelfth International Conf. on Civil, Structural and Environmental Engineering Computing (CC2009), Portugal, Civil-Com Press*
  Vigh, L., G., Deierlein, G., G., Miranda, E., Liel, A., B., Tipping, S.
  2009: 15

- **Incorporating modeling uncertainties in the assessment of seismic collapse risk of buildings** *STRUCTURAL SAFETY*
  Liel, A. B., Haselton, C. B., Deierlein, G. G., Baker, J. W.
  2009; 31 (2): 197-211

- **Validation of cyclic void growth model for fracture initiation in blunt notch and dogbone steel specimens** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Kanvinde, A. M., Deierlein, G. G.
  2008; 134 (9): 1528-1537

- **Comparing Seismic Collapse Safety of Modern and Existing Reinforced Concrete Frame Structures in California** *2008 ASCE-SEI Structure's Congress 2008: Crossing Borders, Paper 246*
  Liel, A., B., Haselton, C., B., Deierlein, G., G.
  2008: 8

- **Quantification of Building System Performance and Response Parameters**
  Deierlein, G., G.

2008

- **Seismic Performance of Steel Corrugated Shear Wall: Analytical Model Calibration and Performance Qualification**
  Vigh, L., G., Deierlein, G., G., Miranda, E., Tipping, S.
  2008
- **Assessing Building System Collapse Performance and Associated Design Requirements for Seismic Design**
  Deierlein, G., G., Liel, A., B., Haselton, C., B., Kircher, C., A.
  2008
- **Comparative Assessment of Collapse Safety of Reinforced-Concrete Moment Frame Buildings**
  Liel, A., B., Haselton, C., B., Deierlein, G., G.
  2008
- **Controlled Rocking of Steel Framed Buildings as a Sustainable New Technology for Seismic Resistance in Buildings** *Creating and Renewing Urban Structures, Chicago, Illinois, International Association for Bridge and Structural Engineering, Zurich, Switzerland*
  Hajjar, J., F., Eatherton, M., Deierlein, G., G., Ma, X., Pena, A., Krawinkler, H.
  in press.2008: 10
- **Assessing the Collapse Risk of California's Existing Reinforced Concrete Frame Structures: Metrics for Seismic Safety Decisions** *Blume Technical Report 166*
  Liel, A., B., Deierlein, G., G.
  2008: 315
- **Seismic Response of Steel Controlled Rocking Frames with Replaceable Energy-Dissipating Fuses**
  Eatherton, M., Hajjar, J., F., Deierlein, G., G., Krawinkler, H., Billington, S., Ma, X.
  2008
- **Study of Building Collapse for Performance-Based Design Validation** *2008 ASCE-SEI Structure's Congress 2008: Crossing Borders, Paper 244*
  Maison, B., Kasai, K., Deierlein, G., G.
  2008: 10
- **Example Evaluation of the ATC-63 Methodology for Reinforced Concrete Steel Moment Frame Buildings** *2008 ASCE-SEI Structure's Congress 2008: Crossing Borders, Paper 49*
  Haselton, C., B., Liel, A., B., Deierlein, G., G.
  2008: 10
- **ATC 63 Methodology for Evaluating Seismic Collapse Safety of Archetype Buildings** *2008 ASCE-SEI Structure's Congress 2008: Crossing Borders, Paper 48*
  Deierlein, G., G., Liel, A., B., Haselton, C., B., Kircher, C., A.
  2008: 10
- **Evaluation of the seismic performance of a code-conforming reinforced-concrete frame building - from seismic hazard to collapse safety and economic losses** *EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS*
  Goulet, C. A., Haselton, C. B., Mitrani-Reiser, J., Beck, J. L., Deierlein, G. G., Porter, K. A., Stewart, J. P.
  2007; 36 (13): 1973-1997
- **Strength design criteria for steel members at elevated temperatures** *JOURNAL OF CONSTRUCTIONAL STEEL RESEARCH*
  Takagi, J., Deierlein, G. G.
  2007; 63 (8): 1036-1050
- **Cyclic void growth model to assess ductile fracture initiation in structural steels due to ultra low cycle fatigue** *JOURNAL OF ENGINEERING MECHANICS-ASCE*
  Kanvinde, A. M., Deierlein, G. G.
  2007; 133 (6): 701-712
- **Finite-element simulation of ductile fracture in reduced section pull-plates using micromechanics-based fracture model** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Kanvinde, A. M., Deierlein, G. G.
  2007; 133 (5): 656-664

- **A Cyclic Void Growth Model to Assess Ductile Fracture Initiation in Structural Steels Due to Ultra Low Cycle Fatigue** *EM, ASCE*
  Kanvinde, A., Deierlein, G., G.
  2007; 6 (133): 701-712
- **Seismic Collapse Safety and Behavior of Modern Reinforced Concrete Moment Frame Buildings** *ASCE Structures Congress 2007, Long Beach, CA*
  Haselton, C., B., Liel, A., B., Dean, B., S., Chou, J., H., Deierlein, G., G.
  2007
- **Finite Element Simulation of Ductile Fracture in Reduced Section Pull Plates using Micromechanics-based Fracture Models** *JSE, ASCE*
  Kanvinde, A., Deierlein, G., G.
  2007; 5 (133): 656-664
- **Beam-Column Element Model Calibrated for Predicting Flexural Response Leading to Global Collapse of RC Frame Buildings** *PEER Technical Report 200703*
  Haselton, C., B., Liel, A., B., Lange, S., T., Deierlein, G.G.
  2007: 152
- **Assessing Seismic Collapse Safety of Modern Reinforced Concrete Moment Frame Buildings** *Blume Center Technical Report (also appears as PEER Report 2007/03, www.peer.berkeley.edu)*
  Haselton, C., Deierlein, G., G.
  2007: 281
- **Experimental and analytical investigations of net-section fracture in brace-gusset plate connections** *ASCE Structures Congress 2007, Long Beach, CA*
  Fu., X., Fell, B., V., Kanvinde, A., M., Myers, A., T.
  2007
- **Stability Investigation of Steel Members and Frames Under Fire Conditions**
  Takagi, J., Deierlein, G., G.
  2007
- **Physics based continuum models to simulate fracture and Ultra-Low Cycle Fatigue in Steel Structures** *ASCE Structures Congress 2007, Long Beach, CA*
  Kanvinde, A., M., Deierlein, G., G.
  2007
- **Large scale tests and micromechanics-based models to characterize Ultra Low Cycle Fatigue in welded structural details** *ASCE Structures Congress 2007, Long Beach, CA*
  Myers, A., T., Kanvinde, A., M., Deierlein, G., G., Fell, B., V., Fu., X.
  2007
- **An Assessment to Benchmark the Seismic Performance of a Code-Conforming Reinforced Concrete Moment-Frame Building** *PEER Technical Report, www.peer.berkeley.edu*
  Haselton, C., B., Goulet, C., A., Mitrani-Reiser, J., Beck, J., Deierlein, G., G., Porter, K., A.
  2007: 382
- **Void growth model and stress modified critical strain model to predict ductile fracture in structural steels** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Kanvinde, A. M., Deierlein, G. G.
  2006; 132 (12): 1907-1918
- **Analytical models for the seismic performance of gypsum drywall partitions** *EARTHQUAKE SPECTRA*
  Kanvindea, A. M., Deierlein, G. G.
  2006; 22 (2): 391-411
- **Prediction of ductile fracture in steel connections using SMCS criterion** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Chi, W. M., Kanvinde, A. M., Deierlein, G. G.
  2006; 132 (2): 171-181

- **Buckling and Fracture of Concentric Braces Under Inelastic Loading, Steel TIPS Report** *Structural Steel Education Council, http://www.steeltips.org*
  Fell, B., Kanvinde, A., Deierlein, G., G., Meyers, A., Fu, X.
  2006: 74
- **Toward the Codification of Modeling Provisions for Simulating Structural Collapse** *8NCEE, San Francisco, paper 1348*
  Haselton, C., B., Deierlein, G., G.
  2006: 10
- **How have changes in building code provisions for reinforced concrete buildings improved seismic safety?**
  Liel, A., Haselton, C., B., Deierlein, G., G.
  2006
- **Testing and Simulation of Ultra-Low Cycle Fatigue and Fracture in Steel Braces** *8NCEE, San Francisco, paper 587*
  Fell, B., Meyers, A., Kanvinde, A., Deierlein, G., G.
  2006: 10
- **Evaluation of the Seismic Performance of a Code-Conforming Reinforced-Concrete Frame Building - Part II: Loss Estimation** *8NCEE, San Francisco, paper 969*
  Mitrani-Reiser, J., Haselton, C., B., Goulet, C., Porder, K., Beck, J., Deierlein, G., G.
  2006: 10
- **Evaluation of the Seismic Performance of a Code-Conforming Reinforced- Concrete Frame Building - Part I: Ground Motion Selection and Structural Collapse Simulation** *8NCEE, San Francisco, paper 1576*
  Goulet, C., Haselton, C., B., Mitrani-Reiser, J., Deierlein, G., G., Stewart, J., P., Taciroglu, E.
  2006: 10
- **The effectiveness of seismic building code provisions on reducing the collapse risk of reinforced concrete moment frame buildings**
  Liel, A., Haselton, C., B., Deierlein, G., G.
  2006
- **Prediction of Ductile Fracture in Steel Connections Using SMCS Criterion** *JSE, ASCE*
  Chi, W-M., Kanvinde, A., Deierlein, G., G.
  2006; 2 (132): 171-181
- **PEER Year 9 Annual Report to the NSF** *Pacific Earthquake Engineering Research (PEER) Center, Richmond, CA*
  Moehle, J., Deierlein, G., G.
  2006: 130
- **Implementation and Validation of Cumulative Damage Models for Structural Performance Assessment** *8NCEE, San Francisco, A, paper 1540*
  Altoontash, A., Cordova, P., P., Deierlein, G., G.
  2006: 10
- **Composite Moment Frames** *Concrete International*
  Deierlein, Gregory, G., Cordova, P., Tsai, K., Chen, C., Lai, W.
  2005; 5 (27): 39–44
- **Probabilistic Methodology for Performance-Based Fire Engineering**
  Hamilton, S., Deierlein, G., G.
  2005
- **Benchmarking the Collapse Safety of Code-Compliant Reinforced Concrete Moment Frame Building Systems**
  Deierlein, G., G., Haselton, C., B.
  2005
- **Developing Consensus on Provisions to Evaluate Collapse of Reinforced Concrete Buildings**
  Deierlein, G., G., Haselton, C.
  2005
- **Validation of the Seismic Performance of Composite RCS Frames: Full-Scale Testing, Analysis and Seismic Design** *Technical Report 154, Blume Earthquake Engineering Center*

Cordova, P., Deierlein, G., G.
2005: 405

- **Benchmarking Seismic Performance of Reinforced Concrete Frame Buildings**
  Deierlein, G., G., Haselton, C.
  2005
- **PEER Year 8 Annual Report to the NSF** *Pacific Earthquake Engineering Research (PEER) Center, Richmond, CA*
  Moehle, J., Deierlein, G., G.
  2005: 130
- **Overview of US-Japan research on the seismic design of composite reinforced concrete and steel moment frame structures** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Deierlein, G. G., Noguchi, H.
  2004; 130 (2): 361-367
- **Direct Analysis Method for Stability Design of Steel Framed Buildings** *The Structural Engineer*
  Deierlein, G., G.
  2004: 24-28
- **Prediction of Ductile Fracture in Steel Moment Connections During Earthquakes Using Micromechanical Fracture Models**
  Kanvinde, A., Deierlein, G., G.
  2004
- **Overview of a Comprehensive Framework for Earthquake Performance Assessment**
  Deierlein, G., G.
  2004
- **Pseudo-dynamic Testing of a Full-Scale RCS Frame: Part 1 – Design, Construction and Testing**
  Chen, C. H., Lai, W. C., Cordova, P., *Deierlein, G., G., Tsai, K. C.
  2004
- **Micromechanical Simulation of Earthquake Induced Fractures in Steel Structures, Blume TR 145** *Blume Earthquake Engineering Center*
  Kanvinde, A., Deierlein, G., G.
  2004: 290
- **Pseudo-dynamic Testing of a Full-Scale RCS Frame: Part 2 – Analysis and Design Implications**
  Cordova, P., Deierlein, G., G., Chen, C. H., Lai, W. C., Tsai, K. C.
  2004
- **A Framework Methodology for Performance-Based Earthquake Engineering**
  Moehle, J., P., Deierlein, G., G.
  2004
- **Pseudo-dynamic Testing of a Full-Scale RCS Frame: Part 2 – Analysis and Design Implications**
  Cordova, P., Deierlein, G., G., Chen, C. H., Lai, W. C., Tsai, K. C.
  2004
- **Pseudo-dynamic Testing of a Full-Scale RCS Frame: Part 1 – Design, Construction and Testing**
  Chen, C. H., Lai, W. C., Cordova, P., Deierlein, G., G., Tsai, K. C.
  2004
- **PEER Year 7 Annual Report to the NSF** *Pacific Earthquake Engineering Research (PEER) Center, Richmond, CA*
  Moehle, J., Deierlein, G., G.
  2004: 130
- **A Framework for Performance Based Earthquake Engineering**
  Deierlein, G., G., Krawinkler, H., K., Cornell, C., A.
  2003

- **Pseudo-dynamic test of full scale RCS Frame: Part 2 – Analysis and Design Implications**
  Cordova, P., Chen, C., H., Lai, W., C., Deierlein, G., G., Tsai, K., C.
  2003
- **Pseudo-dynamic test of full scale RCS Frame: Part 1 – Design, Construction, Testing**
  Chen, C., H., Lai, W., C., Cordova, P., Deierlein, G., G., Tsai, K., C.
  2003
- **Seismic Performance of Gypsum Walls – Analytical Investigation** *CUREe-Caltech Woodframe Project Report W-23, Consortium of Universities for Earthquake Engineering, Richmond, CA*
  Kanvinde, A., Deierlein, G., G.
  2003: 122
- **PEER Year 6 Annual Report to the NSF** *Pacific Earthquake Engineering Research (PEER) Center, Richmond, CA.*
  Moehle, J., Deierlein, G., G.
  2003: 83
- **Background and Illustrative Examples on Proposed Direct Analysis Method for Stability Design of Moment Frames** *Report on behalf of AISC TC 10 to AISC Specification Committee*
  Deierlein, G., G.
  2003: 17
- **A design model of joints between steel beams and reinforced concrete columns: a study on strength evaluation of RCS joints: Part 2** *Jl. of Structural and Construction Engineering, Architectural Institute of Japan, Tokyo*
  Kanno, R., Deierlein, G.
  2002; 555: 177-184
- **Micromechanical Models for Predicting Ductile Crack Initiation in Metals**
  Kanvinde, A., Deierlein, G., G., Chi, W., M.
  2002
- **Proposed New Requirements for Frame Stability Using Second-Order Analysis**
  Deierlein, G., G., Hajjar, J., F., Yura, J., A., White, D., W., Baker, W., F.
  2002
- **Generalized Hinge Models with Strength and Stiffness Degradation**
  Kaul, R., Deierlein, G., G.
  2002
- **Seismic Design and Performance Assessment of Composite Steel-Concrete Moment Frames**
  Cordova, P., Deierlein, G., G.
  2002
- **Methodology and Simulation Models for Performance-Based Earthquake Engineering** *The Third U.S.-Japan Workshop on Performance-Based Earthquake Engineering Methodology for Reinforced Concrete Building Structures, PEER 2002/02*
  Deierlein, G., G., Kaul, R.
  2002: 203-212
- **Evaluation of existing strength models for RCS joints and consideration toward improved modeling: a study on strength evaluation of RCS joints: Part 1** *Jl. of Structural and Construction Engrg., Arch. Institute of Japan, Tokyo*
  Kanno, R., Deierlein, G.
  2002; 553: 135-142
- **Probabilistic Aspects of Performance-Based Engineering Methodologies for Fires and Earthquakes**
  Hamilton, *Scott, R., Menun, Charles, A., Deierlein, Gregory, G.
  2002
- **PEER Year 5 Annual Report to the NSF** *Pacific Earthquake Engineering Research (PEER) Center, Richmond, CA*
  Moehle, J., Deierlein, G., G.
  2002: 5

- **Seismic damage and collapse assessment of composite moment frames** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Mehanny, S. S., Deierlein, G. G.
  2001; 127 (9): 1045-1053
- **Nonlinear analysis of mixed steel-concrete frames. I: Element formulation** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  El-Tawil, S., Deierlein, G. G.
  2001; 127 (6): 647-655
- **Nonlinear analysis of mixed steel-concrete frames. II: Implementation and verification** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  El-Tawil, S., Deierlein, G. G.
  2001; 127 (6): 656-665
- **Stiffness modeling of reinforced concrete beam-columns for frame analysis** *ACI STRUCTURAL JOURNAL*
  Mehanny, S. S., Kuramoto, H., Deierlein, G. G.
  2001; 98 (2): 215-225
- **Seismic Design of Composite Moment-Framed Buildings – Case Studies and Code Implications**
  Mehanny, S., S., Cordova, P., Deierlein, G., G.
  2001
- **Micromechanical Simulation of Earthquake-Induced Fractures in Steel Structures**
  Deierlein, G., G., Kanvinde, A., M.
  2001
- **Design Model for Joints of RCS Frames**
  Kanno, R., Deierlein, G., G.
  2001
- **Fracture toughness demands in welded beam-column moment connections** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Chi, W. M., Deierlein, G. G., Ingraffea, A.
  2000; 126 (1): 88-97
- **Seismic damage indices and near-collapse performance assessment in composite moment frames** *6th ASCCS International Conference on Steel-Concrete Composite Structures*
  Mehanny, S. S., Deierlein, G. G.
  UNIV SOUTHERN CALIFORNIA, SCHOOL ENGN, DEPT CIVIL ENGN.2000: 111–118
- **On Assessing Near Collapse in Seismic Performance-Based Design**
  Deierlein, G., G., Mehanny, S., F.
  2000
- **Fracture Toughness Demands in Standard and Reduced Beam Section Welded Moment Connections**
  Chi, W, M., Deierlein, G., G.
  2000
- **Research on RC/SRC Column Systems**
  Deierlein, G., G., Noguchi, H.
  2000
- **Development of A two-Parameter Seismic Intensity Measure and Probabilistic Assessment Procedure**
  Cordova, P., Deierlein, G., G., Mehanny, S., S.F., Cornell, C., A.
  2000
- **Seismic Damage Indices and Near-Collapse Performance Assessment in Composite Moment Frames**
  Mehanny, S., F., Deierlein, G., G.
  2000
- **Integrative Analytical Investigations on the Fracture Behavior of Welded Moment Resisting Connections** *Tech. Report 135, J.A. Blume Earthquake Engrg. Center, Stanford, CA*
  Deierlein, G., G., Chi, W., M

2000

- **Recent Research on Seismic Design and Performance Assessment of Composite Steel-Concrete Moment Frames**
  Deierlein, G., G., Cordova, P., Mehanny, S., S.
  edited by Loh, C., Liao, W.
  2000
- **New Provisions for the Seismic Design of Composite and Hybrid Structures** *Earthquake Spectra, EERI*
  Deierlein, G., G.
  2000; 1 (16): 163-178
- **Assessing Seismic Performance of Composite (RCS) and Steel Moment Framed Buildings**
  Mehanny, S., F., Deierlein, G., G.
  2000
- **Modeling and Assessment of Seismic Performance of Composite Frames with Reinforced Concrete Columns and Steel Beams** *Tech. Report 135, J.A. Blume Earthquake Engrg. Center, Stanford, CA*
  Mehanny, S., S., Deierlein, G., G.
  2000
- **Fracture Toughness Demands in Seismically Designed Beam-to-Column Connections** *Fatigue and Fracture Mechanics: 30th Volume, ASTM STP 1360, ASTM, West Conshohocken, PA*
  Chi, W, M., Deierlein, G., G., Ingraffea, A., R.
  2000: 439-455
- **Analysis Models for Mixed Steel-Concrete Space Frames Part I – Beam-Column Element Formulation** *JSE, ASCE*
  El-Tawil, S., Deierlein, G., G.
  2000; 6 (127): 647-655
- **Analysis Models for Mixed Steel-Concrete Space Frames Part II – Implementation and Verification** *JSE, ASCE*
  El-Tawil, S., Deierlein, G., G.
  2000; 6 (127): 656-666
- **Finite-element fracture analyses of welded beam-column connections** *30th National Symposium on Fatigue and Fracture Mechanics*
  Chi, W. M., Deierlein, G. G., Ingraffea, A. R.
  AMERICAN SOCIETY TESTING AND MATERIALS.2000: 439–455
- **Strength and ductility of concrete encased composite columns** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  El-Tawil, S., Deierlein, G. G.
  1999; 125 (9): 1009-1019
- **Fracture Toughness Demands in Welded Moment Connections** *Invited seminar at California Institute of Technology*
  Deierlein, G., G.
  1999
- **Stress-resultant plasticity for frame structures** *JOURNAL OF ENGINEERING MECHANICS-ASCE*
  El-Tawil, S., Deierlein, G. G.
  1998; 124 (12): 1360-1370
- **Inelastic analyses of a 17-story steel framed building damaged during Northridge** *US-Japan Seminar on Innovations in Stability Concepts and Methods for Seismic Design in Structural Steel*
  Chi, W. M., El-Tawil, S., Deierlein, G. G., Abel, J. F.
  ELSEVIER SCI LTD.1998: 481–95
- **Applications of High Performance Computing to Seismic Hazard Mitigation** *DIANA World, DIANA Analysis bv, Delft, Netherlands*
  Deierlein, G., G., Grigoriu, M., D., Ingraffea, A., R., Billington, S., L.
  1998
- **Seismic Design, Analysis and Behavior of Composite (RCS) Moment Frames**
  Mehanny, S., S., Deierlein, G., G.
  1998

- **Bearing Strength of Joints Between Steel Beams and Reinforced Concrete Columns**
  Kanno, R., Deierlein, G., G.
  1998
- **Transfer and Development Length Tests of Prestressing Strand** *Struct. Engrg. Report 98-2, Cornell University, Ithaca, NY*
  Ribble, S., Deierlein, G., G., White, R., N.
  1998
- **Summary of SAC Case Study Building Analyses** *Jl. of Constructed Facilities, ASCE*
  Deierlein, G., G.
  1998; 4 (12): 202-212
- **Performance Based Design: Structural Acceptance Criteria**
  Deierlein, G., G.
  1998
- **Analytical Tools: Challenges, Hurdles and Opportunities**
  Deierlein, G., G.
  1998
- **Computational Fracture Mechanics of Welded Moment Connections**
  Chi, W, M., Deierlein, G., G., Ingraffea, A., R.
  1998
- **Plasticity Model for Hybrid Steel-Concrete Frames**
  El-Tawil, S., Deierlein, G., G.
  1998
- **New Provisions for the Seismic Design of Composite Structures**
  Deierlein, G., G.
  1998
- **Fracture Behavior in Seismically Designed Welded Connections** *Invited seminar at SUNY Buffalo*
  Deierlein, G., G.
  1998
- **Design Guide for Partially Restrained Composite Connections** *JSE, ASCE*
  Darwin, D., Clawson, W., C., Donahey, R., C., Deierlein, G., G., Easterling, E., S., Hooper, I.
  1998; 10 (124): 1099-1114
- **Design Criteria for Composite Steel-Concrete Construction: Current Status and Future Needs** *Hybrid and Composite Structures, SP-174, American Concrete Institute*
  Deierlein, G., G., Leon, R.
  1998: 113-138
- **An Examination of Stress Resultant Plasticity for Frame Structures** *Jl. of Engrg. Mechanics, ASCE*
  El-Tawil, S., Deierlein, G., G.
  1997; 12 (124): 1360-1370
- **Nonlinear Transient Analysis of 3D Multistory Moment-Frame Buildings**
  Chi, W., M., El-Tawil, S., Deierlein, G., G., Abel, J., F
  1997
- **Analyses of Nine Steel Moment Frame Buildings Affected by the Northridge Earthquake**
  Deierlein, G., G.
  1997
- **Section 2.5- Methods of Analysis; Section 6.4 - Beam-to-Column Moment Connections; Section 6.7.2- Steel Brace to Composite Columns** *Composite Construction: Design for Buildings*
  Deierlein, G., G.

edited by Colaco, V., Griffis, F.
ASCE & McGraw Hill..1997: 1

- **Frame Stability** *Chapter 16 of the 5th Edition of the Guide to the Stability of Metal Structures*
  Deierlein, G., G., White, D., W.
  Structural Stability Research Council and J. Wiley.1997: 594–668
- **Recorded Seismic response of a 13-Story Steel Moment Frame Damaged in the 1994 Northridge Earthquake**
  Sezen, H., Deierlein, G., G., Celebi, M.
  1997
- **Steel-Framed Structures**
  Deierlein, G., G.
  1997
- **Seismic Design of Composite and Hybrid Steel-Concrete Structures** *Transportation Research Board, 1997 Annual Meeting, Washington, DC*
  Deierlein, G., G.
  1997
- **Seismic Design and Performance of RCS Moment Frames** *Fourth JTCC-Hybrid Meeting, US-Japan Cooperative Program, Monterey, CA,*
  Deierlein, G., G., Kuramoto, H., Mehanny, S.
  1997: 9
- **Proposed Ground Motions for Dynamic Analyses** *Fourth JTCC-Hybrid Meeting, US-Japan Cooperative Program, Monterey, CA*
  Deierlein, G., G., Mehanny, S.
  1997: 12
- **Inelastic Seismic Analysis of a 17 Story Steel Building Damaged in Northridge** *Engineering Structures, Elsevier*
  Chi, W., M., El-Tawil, S., Deierlein, G., G., Abel, J., F.
  1997; 20 (4-6): 481-495
- **Finite Element Fracture Mechanics Study of Welded Beam-Column Connections** *SEAONC 1997 Spring Seminar, San Francisco*
  Chi, W., M., Deierlein, G., G., Ingraffea, A., R.
  1997: 53
- **Finite Element Fracture Mechanics Study of Welded Beam-Column Connections** *US-Japan Workshop on Fracture in Steel Structures, San Francisco*
  Deierlein, G., G.
  1997
- **Finite Element Fracture Analyses of Welded Steel Connections** *SAC/BD-97/05, NISEE*
  Chi, W., M., Deierlein, G., G., Ingraffea, A., R.
  1997: 167
- **Inelastic Analyses of a High-Rise Steel Moment Frame Building Damaged in the Northridge Earthquake** *Struct. Engrg. Report, Cornell University, Ithaca, NY*
  Chi, W, M., El-Tawil, S., Deierlein, G., G., Abel, J., F.
  1996
- **Frame stability under seismic leads** *North-American Session of the 5th International Colloquium on Stability of Metal Structures/ASCE Structures Congress - Future Direction in Stability Research and Design*
  Deierlein, G. G., Krawinkler, H.
  STRUCTURAL STABILITY RESEARCH COUNCIL.1996: 31–32
- **Inelastic analysis of mixed steel-concrete systems** *North-American Session of the 5th International Colloquium on Stability of Metal Structures/ ASCE Structures Congress - Future Direction in Stability Research and Design*
  ELTAWIL, S., Deierlein, G. G.
  STRUCTURAL STABILITY RESEARCH COUNCIL.1996: 53–62
- **Nonlinear frame analysis with torsional-flexural member behavior** *North-American Session of the 5th International Colloquium on Stability of Metal Structures/ASCE Structures Congress - Future Direction in Stability Research and Design*

ATTALLA, M. R., Deierlein, G. G., McGuire, W.
STRUCTURAL STABILITY RESEARCH COUNCIL.1996: 11–19

- **Investigation of Beam Rotation Capacity Using Finite Element Analysis**
  Huang, P., C., Deierlein, G., G.
  1996
- **Inelastic Models for Composite Moment Connections in RCS Frames**
  El-Tawil, S., Kanno, R., Deierlein, G., G.
  1996
- **Inelastic Analysis of Mixed Steel-Concrete Systems**
  El-Tawil, S., Deierlein, G., G.
  1996
- **Seismic Behavior of Composite (RCS) Beam-Column Joint Subassemblies**
  Kanno, R., Deierlein, G., G.
  1996
- **Nonlinear Frame Analysis with Torsional-Flexural Member Behavior**
  Attalla, M., Deierlein, G., G., McGuire, W.
  1996
- **Inelastic Dynamic Analysis of Mixed Steel-Concrete Space Frames** *Stuct. Engrg. Report 96-5, Cornell University, Ithaca, NY*
  El-Tawil, S., Deierlein, G., G.
  1996: 235
- **Fiber Element Analysis of Composite Beam-Column Cross Sections** *Stuct. Engrg. Report 96-6, Cornell University, Ithaca, NY*
  El-Tawil, S., Deierlein, G., G.
  1996: 81
- **Static Nonlinear Analysis for a Composite RCS Frame** *Third JTCC-Hybrid Meeting, US-Japan Cooperative Program, Hong Kong*
  Kuramoto, H., Mehanny, S., Deierlein, G., G.
  1996: 8
- **Nonlinear Analysis of a 13-Story Steel Moment Frame Building Damaged in the Northridge Earthquake** *Struct. Engrg. Report, Cornell University, Ithaca, NY*
  Sezen, Deierlein, G., G.
  1996
- **Inelastic Analysis and Behavior of Steel and Composite Structures** *Invited lecture for Colloquium on Advanced Plastic Analysis Methods for Frame Design, Sponsored by the Architectural Institute of Japan, Osaka, Japan*
  Deierlein, G., G.
  1995
- **An overview of codes, standards and guidelines for composite construction** *American-Society-of-Civil-Engineers 13th Structures Congress*
  Leon, R. T., Deierlein, G. G.
  AMER SOC CIVIL ENGINEERS.1995: 1297–1300
- **Overview of the 1994 NEHRP recommended provisions for the seismic design of composite structures** *American-Society-of-Civil-Engineers 13th Structures Congress*
  Deierlein, G. G.
  AMER SOC CIVIL ENGINEERS.1995: 1305–1308
- **Inelastic analysis and design of composite beam-columns** *American-Society-of-Civil-Engineers 13th Structures Congress*
  ELTAWIL, S., Deierlein, G. G.
  AMER SOC CIVIL ENGINEERS.1995: 1837–1840
- **EVALUATION OF ACI-318 AND AISC (LRFD) STRENGTH PROVISIONS FOR COMPOSITE BEAM-COLUMNS** *JOURNAL OF CONSTRUCTIONAL STEEL RESEARCH*
  ELTAWIL, S., SANZPICON, C. F., Deierlein, G. G.

1995; 34 (1): 103-123

- **Refined Plasticity Models for Steel Frame Analysis**
  Attalla, M., McGuire, W., Deierlein, G., G.
  1995
- **Overview of the 1994 NEHRP Recommended Provisions for Composite Structures**
  Deierlein, G., G.
  1995
- **Finite Rotation Effects in 3-D Frame Analysis**
  Chen, C. S., Deierlein, G., G., McGuire, W.
  1995
- **Summary of Building Analysis Studies** *Technical Report: Analytical and Field Investigations of Buildings Affected by the Northridge Earthquake of Jan. 17, 1994, SAC/FEMA Report 95-04 (pt. 1)*
  Deierlein, G., G.
  1995: 1-1 to 1-50
- **Inelastic Analysis and Design of Composite Beam-Columns**
  El-Tawil, S., Deierlein, G., G.
  1995
- **An Overview of Codes, Standards, and Guidelines for Composite Construction**
  Leon, R., T., Deierlein, G., G.
  1995
- **Inelastic Torsional-Flexural Effects in Steel Structures** *Dynamic Plasticity and Structural Behaviors*
  Deierlein, G., G., McGuire, W., Attalla, M.
  edited by Tanimura, S., Khan, A., S.
  Gordon & Breach Publishers, Luxembourg.1995: 451–454
- **Proposed Specification and Commentary for the Composite Joists and Trusses** *JSE, ASCE, NY*
  Darwin, D., Clawson, W., C., Donahey, R., C., Deierlein, G., G., Leon, R., T.
  1995; 4 (112): 350-358
- **Evaluation of ACI 318 and AISC (LRFD) Strength Provisions for Composite Columns** *Jl. of Const. Steel Research, Elsevier*
  El-Tawil, S., Sanz-Picon, C., F., Deierlein, G., G.
  1995; 34: 103-123
- **SPREAD OF PLASTICITY - QUASI-PLASTIC-HINGE APPROACH** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  ATTALLA, M. R., Deierlein, G. G., McGuire, W.
  1994; 120 (8): 2451-2473
- **Cyclic Behavior of Joints Between Steel Beams and Reinforced Concrete Columns** *Structures Congress 1994, ASCE, NY*
  Kanno, R., Deierlein, G., G.
  1994: 1137-1142
- **BSSC TS11 Composite Structures, New Chapter on Composite Structures** *NEHRP Recommended Provisions for the Development of Seismic Regulations for New Buildings*
  G., G., Deierlein, C., Astaneh, H., Leon, R., Malley, J., Yousseff, N.
  1994
- **Spread of Plasticity - A Quasi-plastic Hinge Approach** *JSE, ASCE, NY*
  Attalla, M., R., Deierlein, G., G., McGuire, W.
  1994; 8 (120): 2451-2473
- **Guidelines for Design of Joints Between Steel Beams and Reinforced Concrete Columns** *JSE., ASCE*
  Darwin, D., Clawson, W., C., Donahey, R., C., Deierlein, G., G., Leon, R., T., Sheikh, T., M.
  1994; 8 (120): 2330-2357

- **Multimedia and Case Studies in Structural Engineering** *Computer Applications in Engineering Education*
  Deierlein, G., G., Valenzuela, M., L., White, R., N.
  J. Wiley.1993: 159–171
- **A Structural Engineering Education Image Database**
  Valenzuela, M., L., Deierlein, G., G., White, R., N.
  1993
- **COMMENTARY ON PROPOSED SPECIFICATION FOR STRUCTURAL-STEEL BEAMS WITH WEB OPENINGS (WITH DESIGN EXAMPLE)** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Darwin, D., DONAHEY, R. C., CLAWSON, W. C., Deierlein, G. G., Leon, R. T.
  1992; 118 (12): 3325-3349
- **PROPOSED SPECIFICATION FOR STRUCTURAL-STEEL BEAMS WITH WEB OPENINGS** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Darwin, D., DONAHEY, R. C., CLAWSON, W. C., Deierlein, G. G., Leon, R. T.
  1992; 118 (12): 3315-3324
- **INELASTIC LIMIT STATES DESIGN .1. PLANAR FRAME STUDIES** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Ziemian, R. D., McGuire, W., Deierlein, G. G.
  1992; 118 (9): 2532-2549
- **Limit States Steel Design with Second-Order Inelastic Analysis: 3D High-rise Frame Study** *JSE, ASCE*
  Ziemian, R., D., McGuire, W., Deierlein, G., G.
  1992; 9 (118): 2550 - 2567
- **Design Guidelines for Joints Between Steel Beams and Reinforced Concrete Columns**
  Deierlein, G., G.
  1992
- **Computer-aided Design and Nonlinear Analysis of Steel Framed Structures**
  Deierlein, G., G., McGuire, W.
  1992
- **Research and Practice in the U.S. on Hybrid Subassemblages and Connections**
  Deierlein, G., G.
  1992
- **Design and Behavior of Composite Steel-Concrete Structures**
  Deierlein, G., G.
  1992
- **Static and Dynamic Analysis of Steel Frames With Nonlinear Connection and Joint Effects**
  Deierlein, G., G., Zhao, Y.
  1992
- **Use of Multimedia in a Sophomore Design Course**
  Valenzuela, M., L., Deierlein, G., G., White, R., N.
  1992
- **Proposed Specification and Commentary for Struc. Steel Beams with Web Openings** *JSE, ASCE*
  Darwin, D., Donahey, R., C., Clawson, W., C., Deierlein, G., G., Leon, R., T.
  1992; 12 (118): 3315-3349
- **Limit States Steel Design with Second-Order Inelastic Analysis: Planar Frame Studies** *JSE, ASCE*
  Ziemian, R., D., McGuire, W., Deierlein, G., G.
  1992; 9 (118): 2532 - 2549
- **Nonlinear Analysis of 3-D Frames with Semi-rigid Connections Using the Capacity Spectrum Method** *Technical Report NCEER-91-0008, National Center For Earthquake Engineering Research, SUNY Buffalo, NY*
  Deierlein, G., G., Hsieh, S., H., Shen, Y., J., Abel, J., F.

1991

- **NONLINEAR-ANALYSIS OF 3-DIMENSIONAL STEEL FRAMES WITH SEMIRIGID CONNECTIONS** *COMPUTERS & STRUCTURES*
  Hsieh, S. H., Deierlein, G. G.
  1991; 41 (5): 995-1009

- **A 2-SURFACE CONCENTRATED PLASTICITY MODEL FOR ANALYSIS OF 3D FRAMED STRUCTURES** *1991 ANNUAL TECHNICAL SESSION OF THE STRUCTURAL STABILITY RESEARCH COUNCIL : INELASTIC BEHAVIOR AND DESIGN OF FRAMES*
  Deierlein, G. G., Zhao, Y. T., McGuire, W.
  STRUCTURAL STABILITY RESEARCH COUNCIL.1991: 423–432

- **School of Civil and Environmental Engineering**
  Deierlein, G., G.
  edited by Abel, J., F., Deierlein, G., G.
  1991

- **Nonlinear Analysis of Three-Dimensional Steel Frames with Semi-rigid Connections** *Computers and Structures*
  Hsieh, S., H., Deierlein, G., G.
  Pergamon Press.1991: 995–1010

- **Advances in Inelastic Analysis for the Seismic Design and Evaluation of Steel Structures**
  Deierlein, G., G., McGuire, W., Abel, J., F.
  1991

- **A Concentrated Plasticity Approach to Inelastic Design**
  Deierlein, G., G., McGuire, W.
  1991

- **A Case Study in Limit States Analysis and Design**
  Ziemian, R., Deierlein, G., G., McGuire, W.
  1991

- **A Two-Surface Concentrated Plasticity Mode for Analysis of 3D Framed Structures**
  Deierlein, G., G., Zhao, Y., T., McGuire, W.
  1991

- **Computer-Aided Design of Steel Structures with Flexible Connections**
  Deierlein, G., G., Hsieh, S., H., Shen, Y., J.
  1990

- **THE USE OF 2ND-ORDER INELASTIC ANALYSIS TO EVALUATE FRAME STABILITY FOR DESIGN** *1990 ANNUAL TECHNICAL SESSION OF THE STRUCTURAL STABILITY RESEARCH COUNCIL : STABILITY OF BRIDGES*
  Deierlein, G. G., McGuire, W.
  STRUCTURAL STABILITY RESEARCH COUNCIL.1990: 345–356

- **ONE APPROACH TO INELASTIC ANALYSIS AND DESIGN** *1990 NATIONAL STEEL CONSTRUCTION CONF - FABRICATORS AND ENGINEERS, WORKING TOGETHER : TEAMWORK*
  Ziemian, R. D., White, D. W., Deierlein, G. G., McGuire, W.
  AMER INST STEEL CONSTRUCTION.1990: 303–322

- **Seismic Response of Steel Frames with Semi-Rigid Connections using the Capacity Spectrum Method**
  Deierlein, G., G., Hsieh, S., H.
  1990

- **Design of Beam-Column Connections for Composite-Framed Structures**
  Deierlein, G., G., Sheikh, T., M., Jirsa, J., O., Yura, J., A.
  1990

- **The Use of 2nd-Order Inelastic Analysis to Evaluate Frame Stability for Design**
  Deierlein, G., G., McGuire, W.
  1990

- **One Approach to Inelastic Analysis and Design**
  Ziemian, R., White, D., W., Deierlein, G., G., McGuire, W.
  1990
- **Computer-Aided Seismic Analysis and Design of Framed Structures**
  Chrysostomou, C., Z., Zhao, Y., McGuire, W., Deierlein, G., G., Abel, J., F.
  1990
- **BEAM-COLUMN MOMENT CONNECTIONS FOR COMPOSITE FRAMES .1.** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  SHEIKH, T. M., Deierlein, G. G., Yura, J. A., Jirsa, J. O.
  1989; 115 (11): 2858-2876
- **BEAM-COLUMN MOMENT CONNECTIONS FOR COMPOSITE FRAMES .2.** *JOURNAL OF STRUCTURAL ENGINEERING-ASCE*
  Deierlein, G. G., SHEIKH, T. M., Yura, J. A., Jirsa, J. O.
  1989; 115 (11): 2877-2896
- **Technical Manual to CU-QUAND** *Structural Engineering Report 89-14, School of Civil & Env. Engineering, Cornell University*
  Zhao, Y., Deierlein, G., G., Abel, J., F., McGuire, W.
  1989
- **Recent Research in Beam-Column Connections for Composite-Framed Structures**
  Deierlein, G., G., Sheikh, T., M., Yura, J., A., Jirsa, J., O.
  1989
- **Some Interactive Graphics and Parallel Processing for Earthquake Engineering** *Computer Utilization in Structural Engineering*
  Deierlein, G., G., Abel, J., F., McGuire, W., Srivastav, S.
  edited by Nelson, J., K.
  ASCE, NY.1989: 438–447
- **Programmers Manual to CU-PREPF, CU-STAND, and CU-QUAND** *Structural Engineering Report 89-15, School of Civil and Env. Engineering, Cornell University*
  Hsieh, S., H., Zhao, Y., Deierlein, G., G., Abel, J., F.
  1989
- **Part 2: Beam Column Moment Connections for Composite Frames** *JSE, ASCE*
  Deierlein, G., G., Sheikh, T., M., Yura, J., A., Jirsa, J., O.
  1989; 11 (115): 2877-2896
- **Part 1: Beam-Column Moment Connections for Composite Frames** *JSE, ASCE*
  Sheikh, T., M., Deierlein, G., G., Yura, J., A., Jirsa, J., O.
  1989; 11 (115): 2859-2876
- **Illustrated Primer to CU-PREPF, CU-STAND, and CU-QUAND** *Structural Engineering Report 89-12, School of Civil and Env. Engineering, Cornell University*
  McGuire, W., Deierlein, G., G., Sooi, T., K., Zhao, Y.
  1989
- **Technical Manual to CU-STAND** *Structural Engineering Report 89-13, School of Civil and Env. Engineering, Cornell University*
  Hsieh, S., H., Deierlein, G., G., McGuire, W., Abel, J., F.
  1989
- **Design of Moment Connections for Composite Framed Structures** *PMFSEL Report No. 88-1, The University of Texas*
  Deierlein, G., G., Yura, J., A., Jirsa, J., O.
  1988
- **Design of Composite Connections Between Steel Beams and Reinforced Concrete Columns**
  Deierlein, G., G., Sheikh, T., M., Yura, J., A., Jirsa, J., O.
  1988

- **Controlled Rocking of Steel-Framed Buildings with Replaceable Energy Dissipating Fuses** *Invited Presentations: (1) Disaster Prevention Research Institute of Kyoto University (12/21/09), (2) PEER Annual Meeting, San Francisco (12/16/09), (3) UC Berkeley Fall Seminar (9/2010), (4) NEES Annual meeting, San Francisco (10/2010), (5) NSF-CMMI Annual Meeting, Atlanta*

  Deierlein, G., G.

  2009, 2010, 2011