

Resilience: A New Paradigm of Nuclear Safety

1. Front Matter

Pages i-xvii

[PDF](#)

2. [The Fukushima Daiichi Nuclear Accident: Entering into Resilience Faced with an Extreme Situation](#)

Franck Guarnieri

Pages 1-17 [Open Access](#)

[PDF](#)

3. What are Damages in Nuclear Accidents?

1. Front Matter

Pages 19-19

[PDF](#)

2. [Does the Concept of Loss Orient Risk Prevention Policy?](#)

Dominique Pecaud

Pages 21-34 [Open Access](#)

[PDF](#)

3. [How the Fukushima Daiichi Accident Changed \(or not\) the Nuclear Safety Fundamentals?](#)

Kazuo Furuta, Taro Kanno

Pages 35-45 [Open Access](#)

[PDF](#)

4. [Consequences of Severe Nuclear Accidents on Social Regulations in Socio-Technical Organizations](#)

Christophe Martin

Pages 47-54 [Open Access](#)

[PDF](#)

4. Measurement of Damages

1. Front Matter

Pages 55-55

[PDF](#)

2. [A Multiscale Bayesian Data Integration Approach for Mapping Radionuclide Contamination](#)

Haruko Murakami Wainwright, Masahiko Okumura, Kimiaki Saito

Pages 57-65 [Open Access](#)

[PDF](#)

3. [Challenges for Nuclear Safety from the Viewpoint of Natural Hazard Risk Management](#)

Tatsuya Itoi, Naoto Sekimura

Pages 67-78 [Open Access](#)

[PDF](#)

4. [The Economic Assessment of the Cost of Nuclear Accidents](#)

Romain Bizet, François Lévêque

Pages 79-96 [Open Access](#)

[PDF](#)

5. [Considering Nuclear Accident in Energy Modeling Analysis](#)

Ryoichi Komiyama

Pages 97-110 [Open Access](#)

[PDF](#)

6. [Deprivation of Media Attention by Fukushima Daiichi Nuclear Accident: Comparison Between National and Local Newspapers](#)

Ryuma Shineha, Mikihiro Tanaka

Pages 111-125 [Open Access](#)

[PDF](#)

7. [Development of a Knowledge Management System for Energy Driven by Public Feedback](#)

Massimiliano Fratoni, Joonhong Ahn, Brandie Nonnecke, Giorgio Locatelli, Ken Goldberg

Pages 127-133 [Open Access](#)

[PDF](#)

5. Barriers Against Transition into Resilience

1. Front Matter

Pages 135-135

[PDF](#)

2. [What Cultural Objects Say About Nuclear Accidents and Their Way of Depicting a Controversial Industry](#)

Aurélien Portelli

Pages 137-156 [Open Access](#)
[PDF](#)

3. [Why Is It so Difficult to Learn from Accidents?](#)

Kohta Juraku
Pages 157-168 [Open Access](#)
[PDF](#)

4. [Decision-Making in Extreme Situations Following the Fukushima Daiichi Accident](#)

Sébastien Travadel
Pages 169-183 [Open Access](#)
[PDF](#)

5. [An Ethical Perspective on Extreme Situations and Nuclear Safety Preservation](#)

Hortense Blazsin
Pages 185-193 [Open Access](#)
[PDF](#)

6. [Japan's Nuclear Imaginaries Before and After Fukushima: Visions of Science, Technology, and Society](#)

Kyoko Sato
Pages 195-206 [Open Access](#)
[PDF](#)

7. [The Institute of Resilient Communities](#)

Kai Vetter
Pages 207-218 [Open Access](#)
[PDF](#)

6. Students Contributions

1. Front Matter
Pages 219-219
[PDF](#)

2. [Ground Motion Prediction for Regional Seismic Risk Analysis Including Nuclear Power Station](#)

Hiroyasu Abe
Pages 221-227 [Open Access](#)
[PDF](#)

3. [Effects of Inelastic Neutron Scattering in Magnetic Confinement Fusion Devices](#)

Ivana Abramovic

Pages 229-232 [Open Access](#)

[PDF](#)

4. [The Account of the Fukushima Daiichi Accident by the Plant Manager: A Source to Study Engineering Thinking in Extreme Situations](#)
-

Aissame Afrouss

Pages 233-241 [Open Access](#)

[PDF](#)

5. [On Safety Management Devices: Injunction and Order Use in Emergency Situation](#)
-

Sophie Agulhon

Pages 243-250 [Open Access](#)

[PDF](#)

6. [The Water Neutron Detector](#)
-

Alexandra (Sasha) Asghari

Pages 251-255 [Open Access](#)

[PDF](#)

7. [Human Error and Defense in Depth: From the “Clambake” to the “Swiss Cheese”](#)
-

Justin Larouzée

Pages 257-267 [Open Access](#)

[PDF](#)

8. [Criticality Safety Study for the Disposal of Damaged Fuels from Fukushima Daiichi Reactors](#)
-

Xudong Liu

Pages 269-277 [Open Access](#)

[PDF](#)

9. [Rational and Non-rational Influence in a Time-Constrained Group Decision Making](#)
-

Dipta Mahardhika, Adrián Agulló Valls, Taro Kanno, Kazuo Furuta

Pages 279-287 [Open Access](#)

[PDF](#)

10. [Evaluation of Optimal Power Generation Mix Considering Nuclear Power Plants’ Shut-Down Risk](#)
-

Hiromu Matsuzawa, Ryoichi Komiyama, Yasumasa Fujii

Pages 289-302 [Open Access](#)

[PDF](#)

11. [A Hybrid Finite Element and Mesh-Free Particle Method for Disaster-Resilient Design of Structures](#)
-

Naoto Mitsume, Shinobu Yoshimura, Kohei Murotani, Tomonori Yamada

Pages 303-310 [Open Access](#)

[PDF](#)

12. [Lack of Cesium Bioaccumulation in Gelatinous Marine Life in the Pacific Northwest Pelagic Food-Web](#)
-

Delvan R. Neville, Kathryn A. Higley

Pages 311-315 [Open Access](#)

[PDF](#)

13. [RadWatch Near-Realtime Air Monitoring \(Natural Radioactive Backgrounds and Outreach\)](#)
-

Ryan Pavlovsky

Pages 317-324 [Open Access](#)

[PDF](#)

14. [Incorporating Value Discussions into High Level Radioactive Waste Disposal Policy: Results of Developing Fieldwork](#)
-

Rin Watanabe

Pages 325-333 [Open Access](#)

[PDF](#)

7. Epilogue

1. Front Matter
Pages 335-335

[PDF](#)

2. [Hybrid Disasters—Hybrid Knowledge](#)
-

Charlotte Mazel-Cabasse

Pages 337-351 [Open Access](#)

[PDF](#)

8. Back Matter
-

Pages 353-356

