1 BIBLIOGRAFIA RAGIONATA SULL’ISOLAMENTO SISMICO.

1.1 Criteri generali

In questa sezione sono stati raggruppati alcuni articoli significativi nei quali vengono discusse le problematiche generali riguardanti l’isolamento sismico alla base.

Asher, Jefferson W.
*General Guidelines Regarding the Design of Base Isolation Systems for Buildings*

Buckle I. G., Mayes R. L.
*Seismic isolation: history, application, and performance--a world view.*

De Luca, A.; Mele, E.
*Base isolation and energy dissipation: general report*
Behaviour of Steel Structures in Seismic Areas: STESSA '97, Edizioni, Salerno, Italy, 1997, pages 683-699

Griffith, M. C.; Whittaker, A. S.
*Base isolation for the seismic protection of structures in Australia*

Guh, T. J.; Youssef, N.
*A comprehensive design procedure for seismic isolation of building structures*
Proceedings of ATC-17-1 Seminar on Seismic Isolation, Passive Energy Dissipation, and Active Control, Applied Technology Council, Redwood City, California, 1993, pages 117-123, Vol. 1

Guh, T. Jeff; Youssef, Nabih
*Seismic performance of base-isolated building structures*
Structural Engineering in Natural Hazards Mitigation: Proceedings of Papers Presented at the Structures Congress '93, American Society of Civil Engineers, New York, 1993, pages 754-759, Vol. 1

Kelly, J. M.
*State-of-the-art and state-of-the-practice in base isolation*
Proceedings of ATC-17-1 Seminar on Seismic Isolation, Passive Energy Dissipation, and Active Control, Applied Technology Council, Redwood City, California, 1993, pages 9-28, Vol. 1

Kelly, J. M.
*Seismic isolation of civil buildings in the USA*

Mayes R. L., Jones L. R., Buckle I. G.
Impediments to the implementation of seismic isolation.
Earthquake Spectra. 1990, vol. 6, no. 2, pp. 283-296

McKay G. R., Chapman H. E., Kirkcalddie D. K.
Seismic isolation: New Zealand applications.

Sattary, V.; Walters, M.; Elsesser, E.
Critical engineering issues in seismic isolation design

Tena-Colunga A., Gomez-Soberon C., Munoz-Loustaunau A.
Seismic isolation of buildings subjected to typical subduction earthquake motions for the Mexican Pacific Coast

Zayas, V. A.; Low, S.
Application of seismic isolation for strong near-field ground motions

1.2 Retrofit

In questa sezione sono stati raggruppati alcuni articoli significativi che illustrano le principali problematiche connesse con l'adeguamento sismico di edifici esistenti mediante isolamento sismico alla base.

Buckle, I. G.
Stability issues in the application of elastomeric isolation systems to the seismic retrofit of historical buildings

Hamburger, R. O.
Seismic retrofit of Hayward City Center Building

Look, D. W. (ed.)
1.3 Aspetti economici

In questa sezione sono stati raggruppati alcuni articoli significativi che illustrano alcune valutazioni economiche connesse con l’isolamento sismico alla base di edifici esistenti.

Elsesser, E.; Jokerst, M.; Naaseh, S.
Historic upgrades in San Francisco

Mayes R. L., Jones L. R., Kelly T. E.
The economics of seismic isolation in buildings.
Earthquake Spectra. 1990, vol. 6, no. 2, pp. 245-263.

Sharpe R. L.
Independent engineer peer review for seismic isolation projects
Earthquake Spectra. 1990, vol. 6, no. 2, pp. 309-316

Sommer, S. C.; Trummer, D. J.
Issues concerning the application of seismic base isolation in the DOE

Stanton J. F., Roeder C. W.
Advantages and limitations of seismic isolation.
1.4 Retrofit di Strutture in cemento armato

In questa sezione sono stati raggruppati alcuni articoli significativi che illustrano le problematiche riguardanti la progettazione e l’applicazione dell’isolamento sismico ad edifici esistenti con struttura portante in cemento armato.

Calderoni, B.; Ghersi, A.; Rinaldi, Z.
**Base isolation as a retrofitting technique for existing R/C buildings**

Cochran, M. L.; Elhassan, R. M.; Hart, G. C.
**Seismic retrofit of an existing twelve story concrete frame building using base isolation**

**Vibration studies of an existing building for base isolation retrofit**

Miller, J. P.; Gould, N. C.
**Seismic base isolation study for a Kentucky building**

Ogura, K. et al.
**Seismic Retrofitting Using Isolation System of Yugawara** 1998

Pavoni, S. B.
**Seismic retrofitting of reinforced concrete building using base isolation system**
Individual Studies by Participants at the International Institute of Seismology and Earthquake Engineering, 33, 1997, pages 165-178

Youssef, N.
**Seismic isolation of Veterans Administration Long Beach Medical Center**
1.5 Retrofit di Strutture in muratura

In questa sezione sono stati raggruppati alcuni articoli significativi che illustrano le problematiche connesse con la progettazione e l’applicazione dell’isolamento sismico ad edifici esistenti con struttura portante in muratura.

Sparacio, R.; et. al.  
*Retrofit through base-isolation: S. Pietro-Frigento*  

Zayas, V. A.; Low, S.  
*Seismic isolation retrofit of a historic building*  

1.6 Retrofit di Strutture in acciaio

In questa sezione sono stati raggruppati alcuni articoli significativi che illustrano le problematiche connesse con la progettazione e l’applicazione dell’isolamento sismico ad edifici esistenti caratterizzati dalla struttura portante in acciaio.

Kim, S.; D’Amore E.  
*Base isolation as a retrofit strategy for welded steel moment frame buildings*  

Sveinsson, B. I.; et. al.  
*Seismic isolation analysis of an existing eight-story building*  

1.7 Retrofit di Strutture in legno

In questa sezione sono stati raggruppati alcuni significativi articoli che illustrano le problematiche connesse con la progettazione e l’applicazione dell’isolamento sismico ad edifici esistenti con struttura portante in legno.

Zayas, V. A.; Low, S.  
*Seismic isolation retrofit of an apartment building*  
Structures Congress ’91 compact papers, American Society of Civil Engineers, New York, 1991, pages 729-732
1.8 Esempi di adeguamento sismico di edifici esistenti (retrofit) isolati alla base

In questa sezione sono stati raggruppati alcuni significativi articoli che illustrano progetti specifici di isolamento sismico di edifici esistenti negli U.S.A.

1.8.1 U. S. Court of Appeals building

Amin, N.; Fatehi, H.; Mokha, A.
Evaluation of different isolation schemes for retrofit of existing buildings
Skidmore, Owings & Merrill, 333 Bush # 20-22, San Francisco, CA 94104

Amin, H.; Mokha, A. S.
Base isolation gets its day in court
Civil Engineering, ASCE, 65, 2, Feb. 1995, pages 44-47

Amin, N., Mokha, A.
U.S. Court of Appeals building: seismic isolation implementation

Amin, N. R., Mokha, A. S., Fatehi, H.
Seismic isolation retrofit of the U.S. Court of Appeals building
Proceedings of ATC-17-1 Seminar on Seismic Isolation, Passive Energy Dissipation, and Active Control, Applied Technology Council, Redwood City, California, 1993, pages 185-195, Vol. 1

Amin, N. R.; Mokha, A. S.; Fatehi, H.
Rehabilitation of the U.S. Court of Appeals building using sliding isolation system

Mokha A. S., Amin N., Constantinou M. C., Zayas V.
Seismic isolation retrofit of large historic building
Journal of Structural Engineering, American Society of Civil Engineers, 122, 3, Mar. 1996, pages 298-308

Mokha, A.; Amin, N. R.; Fatehi, H.  
The largest seismic isolation retrofit of a federal building  

Palfalvi, B.; et. al.  
Implementation issues in seismic isolation retrofit of government buildings  

Keowen, S.; et al.  
Vibration study of the U.S. Court of Appeals building for seismic isolation retrofit  
Proceedings First World Conference on Structural Control, International Assn. for Structural Control, Los Angeles, Vol. 1, 1994, pages WP4-103--WP4-112

Qi, X.; Amin, N. R.; Fatehi, H.  
Seismic retrofit of U.S. Court of Appeals building  

**1.8.2 Salt Lake City and County Building**

Allen, E., Bailey, J. S.  
Seismic Rehabilitation of the Salt Lake City and County Building Using Base Isolation  

Bailey, J., Allen, E.  
Seismic isolation retrofitting of the Salt Lake City and County Building.  

Elsesser, E.; Walters, M.; Allen, E. W.  
Base isolation of the existing City and County Building in Salt Lake City  

Mayes, R. L., Sveinsson, B. I., Jones, L. R.  
Seismic isolation and analysis of the Salt Lake City and County Building  

Walters, Mason; Elsesser, Eric; Allen, Edmund W.  
Base isolation of the existing city and county building in Salt Lake City  
ATC-17, Proceedings of a Seminar and Workshop on Base Isolation and Passive Energy Dissipation, Applied Technology Council, Redwood City, California, 1986, pages 113-122

Walters, Mason T.; Elsesser, Eric; Whittaker, Andrew S.  
Seismic isolation: an emerging rehabilitation technique
1.8.3 Oakland City Hall

Button, M. et al.
*Oakland City Hall: performance analysis and seismic isolation retrofit*
Proceedings, 60th Annual Convention, Structural Engineers Association of California, Structural Engineers Assn. of California, [Sacramento], [1991], pages 163-179

Elsesser, E.; Honeck, W.; Walters, M. T.
*Seismic retrofit of the Oakland City Hall, Oakland, California*
Structural Engineering International, 5, 1, Feb. 1995, pages 12-14

Honeck, W. et al.
*Design and implementation of base isolation for the seismic repair and retrofit of Oakland City Hall*

Honeck, W. et al.
*The seismic isolation of the Oakland City Hall*
Proceedings of ATC-17-1 Seminar on Seismic Isolation, Passive Energy Dissipation, and Active Control, Applied Technology Council, Redwood City, California, 1993, pages 221-232, Vol. 1

Honeck, W. et al.
*Implementation of base isolation for the seismic isolation of Oakland City Hall*
Proceedings, 62nd Annual Convention, Structural Engineers Association of California, Structural Engineers Assn. of California, [Sacramento], [1993], pages 33-46

Walters, M.; Honeck, W. C.
*The complex structural systems of the Oakland City Hall*

Walters, M. T.; Honeck, B.; Elsesser, E.
*Use of seismic isolation in new and retrofit construction*

Walters, M. T.; Honeck, W. C.; Sattary, V.
*Oakland City Hall seismic isolation and repair*
1.8.4  U.S. Court of Appeals, San Francisco

Walters, M. T.; Sattary, V.; Whittaker, A. S.
**Seismic isolation of the U.S. Court of Appeals, San Francisco**
Forell/Elsesser Engineers, 539 Bryant St., San Francisco, CA 94107

1.8.5  Los Angeles City Hall

Youssef, N.
**Application of hybrid damping system with base isolation for the seismic retrofit of Los Angeles City Hall**

Youssef, N.; et. al.
**Passive control of the Los Angeles City Hall**

1.8.6  San Francisco City Hall (unreinforced brick masonry)

Naaseh, S.
**Seismic retrofit of San Francisco City Hall: the role of masonry and concrete**

Naaseh, Simin; Rodler, Paul
**Seismic Retrofit of San Francisco City Hall: Installation of Base Isolation in Existing Buildings**

1.8.7  Mackay School of Mines (unreinforced brick masonry)

Way, D.; Howard, J.
**Rehabilitation of the Mackay School of Mines, phase III, with base isolation**
Structures Congress ’91 compact papers, American Society of Civil Engineers, New York, 1991, pages 737-740

Way, D. ; Howard, J.
**Rehabilitation of the Mackay School of Mines, Phase III, with base isolation**
Way, D., Howard J.  
*Seismic rehabilitation of the Mackay School of Mines: phase III*  
Earthquake Spectra: vol. 6, no. 2 - May 1990, pp. 297-308

1.8.8  **State of California Justice Building**

Pyle, Stephen L.; et. al.  
*Seismic isolation retrofit of the State of California Justice Building*  
Structural Engineering in Natural Hazards Mitigation: Proceedings of Papers Presented at the Structures Congress '93, American Society of Civil Engineers, New York, 1993, pages 742-747, Vol. 1

Pyle, Stephen L.; et. al.  
*Life-cycle cost study for the State of California Justice Building*  
ATC 17-1, Proceedings of ATC-17-1 Seminar on Seismic Isolation, Passive Energy Dissipation, and Active Control, Applied Technology Council, Redwood City, California, 1993, pages 47-58, Vol. 1

1.8.9  **Volunteer Park Tower (unreinforced brick masonry)**

Bleiman, D.  
*Seismic retrofit of a historic brick landmark using base isolation*  
1.9  Esempi notevoli di isolamento sismico

In questa sezione sono stati raggruppati alcuni articoli significativi che illustrano le problematiche connesse con la progettazione e la realizzazione di nuovi edifici con isolamento. Alcuni di questi articoli rappresentano punti di riferimento per l’isolamento sismico alla base.

1.9.1  San Bernardino law and justice center

Tarics, A. G.; Way, D.; Kelly, J. M.  
The implementation of base isolation for the Foothill Communities Law and Justice Center, County of San Bernardino, California  
Reid and Tarics Associates, San Francisco, [1984], 60 pages

Way, Douglas; Lew, Marshall  
Design and analysis of a high-damping rubber isolation system (case history of the Foothill Communities Law and Justice Center)  

1.9.2  San-Bernardino-county-medical-center (building framed with structural steel)

Asher, J. W.; Young, R. P.; Ewing, R. D.  
Seismic isolation design of the San Bernardino County Medical Center Replacement Project  

Asher, J. W., Young R. P., Ewing R. D.  
Seismic isolation design of the san-bernardino-county-medical-center replacement project  

Hussain, Saif M.; Asher, Jefferson W.; Ewing, Robert D.  
Seismic base isolation design for the San Bernardino County Medical Center replacement project  
Structural Engineering in Natural Hazards Mitigation: Proceedings of Papers Presented at the Structures Congress ’93, American Society of Civil Engineers, New York, 1993, pages 760-765, Vol. 1

1.9.3  USC University Hospital (eight-story steel braced frame structure)

Asher, J. W.; et al.  
Seismic isolation design of the USC University Hospital

Asher, J. W.; et al.
Performance of seismically isolated structures in the 1994 Northridge and 1995 Kobe earthquakes

Asher, Jefferson W.; Van Volkinburg, David R.
Seismic isolation of the USC University Hospital
Structures Congress '89: Seismic engineering: research and practice, American Society of Civil Engineers, New York, 1989, pages 605-614