

REFERENCES

Ahmed, O., Van Gemert, D., Vandewalle, L. (2001). "Improved model for plate-end shear of CFRP strengthened RC beams", *Cement & Concrete Composites*, Vol. 23 (2001), pp. 3-19.

Aire, C. (2002). "Estudio experimental del hormigón confinado sometido a compresión", Thesis, Departament Enginyeria de la Construcció, Universitat Politècnica de Catalunya, Spain, 2002.

Alarcón, A. (2002). "Estudio teórico-experimental sobre la reparación y refuerzo de puentes de dovelas con fibras de carbono", Thesis, Departament Enginyeria de la Construcció, Universitat Politècnica de Catalunya, Spain, 2002.

Ali, M., Oelhers, D. J., Bradford, M., A. (2001). "Shear Peeling of Steel Plates Bonded to Tension Faces of RC Beams", *Journal of Structural Engineering*, ASCE, Vol. 127 (12), pp. 1453-1459.

Almusallam, T. H., Al-Salloum, Y. A. (2001). "Ultimate strength prediction for RC beams externally strengthened by composite materials", *Composites Part B: engineering*, Vol. 32 (2001), pp. 609-619.

Anderson, T. L. (1991). *Fracture Mechanics. Fundamentals and applications*, CRC, USA, pp. 793.

Arduini, M., Nanni, A. (1997). "Behavior of Precracked RC Beams Strengthened with Carbon FRP Sheets", *Journal of Composites for Construction*, ASCE, Vol. 1 (2), pp. 63-70.

Arduini, M., Tommaso A. D., Nanni, A. (1997). "Brittle Failure in FRP Plate and Sheet Bonded Beams", *ACI Structural Journal*, Vol. 94 (4), pp. 363-370.

American Society for Testing and Materials (ASTM) (1989). "Standard Test Method for Tensile Properties of Fiber Resin Composites", D3039-76.

Barros, P., Costeira, P., Juvandes, L. F. P. (2000). “Lei Constitutiva da interface Betão/Sistema Compósito. Uma Revisão Crítica”, Proceedings of Betão Estrutural 2000, FEUP, Porto, Portugal.

Beber, A. J., Filho, A. C., Campagnolo, J. L. (1999). “Flexural Strengthening of R/C Beams with CFRP Sheets”, Proceedings of the Conference Structural Faults and Repair 99, London, England.

Bizindaviyi, L., Neale, K. W. (1999). “Transfer Lengths and Bond Strengths for Composites Bonded to Concrete”, Journal of Composites for Construction, ASCE, Vol. 3 (4), pp. 153-160.

Bonacci, J. F. (1996). “Strength, failure mode and deformability of concrete beams strengthened externally with advanced composites”, Proceedings of the Second International Conference of Advanced Composite Materials in Bridges and Structures, edited by El-Badry MM, Quebec, Canada, pp. 419-426.

Bonacci, J. F., Maalej, M. (2001). “Behavioral Trends of RC Beams Strengthened with Externally Bonded FRP”, Journal of Composites for Construction, ASCE, Vol. 5 (2), pp. 102-113.

Bousselham, A., Chaallal, O. (2004). “Shear Strengthening Reinforced Concrete Beams with Fiber-Reinforced Polymer: Assessment of Influencing Parameters and Required Research”, ACI Structural Journal, Vol. 101 (2), pp. 219-227.

Breña, S. F., Bramblett, R. M., Wood, S. L., Kreger, M. E. (2003). “Increasing Flexural Capacity of Reinforced Concrete Beams Using Carbon Fiber-Reinforced Polymer Composites”, ACI Structural Journal, Vol. 100 (1), pp. 36-46.

Bresson J. (1971). “Nouvelles recherches et applications concernant l’utilisation des collages dans les structures. Béton plaque”, Annales de l’ITBTP, Vol. 278, pp. 22-55.

Brosens, K., Van Gemert, D. (1997). “Anchoring stresses between concrete and carbon fibre reinforced laminates”, Proceedings 3rd International Symposium of Non-Metallic (FRP) Reinforcement for Concrete Structures, edited by Japan Concrete Institute, Sapporo, Japan, pp. 271-278.

Brosens, K., Van Gemert, D. (1998). “Plate end shear design for external CFRP laminates”, Proceedings of the Conference Fracture Mechanics of Concrete Structures FRAMCOS-3, edited by Aedificatio Publishers, Freiburg, Germany, pp. 1793-1804.

Brosens, K. (2001). “Anchorage of externally bonded steel plates and CFRP laminates for the strengthening of concrete elements”, Thesis, Katholieke Universiteit Leuven, Belgium, 2001.

Buyukozturk, O., Hearing, B. (1998). “Failure Behavior of Precracked Concrete Beams Retrofitted with FRP”, Journal of Composites for Construction, ASCE, Vol. 2 (3), pp. 138-144.

CEB-FIP (1990). "Código Modelo CEB-FIP 1990 para hormigón estructural", (E-4), Traducción Española de GEHO, Colegio de Ingenieros de Caminos, C. y P./GEHO/Atep, 1995.

CEN/TC250 (2003). "Eurocode 2: Design of concrete structures - Part 1.1: General rules and rules for buildings EN 1992 - 1 - 1", (Draft 2003).

Ceroni, F., Prota, A., Pecce, M. (2001). "Experimental Behavior of RC Beams Strengthened by FRP sheets", Proceedings of Composites in Constructions 2001, edited by J. Figueiras et al., Balkema, Porto, Portugal, pp. 499-504.

Chaallal, O., Nollet, M. J., Perraton, D. (1997). "Experimental investigation of RC beams strengthened in flexure with externally bonded CFRP strips", Proceedings of the 1997 Annual Conference, Sherbrooke, Canada, pp. 21-30.

Chaallal, O., Nollet, M. J., Perraton, D. (1998a). "Shear Strengthening of RC Beams by Externally Bonded Side CFRP Strips", Journal of Composites for Construction, ASCE, Vol. 2 (2), pp. 111-113.

Chaallal, O., Nollet, M.J., Perraton, D. (1998b). "Strengthening of reinforced concrete beams with externally bonded fiber-reinforced-plastic plates: design guidelines for shear and flexure", Canadian Journal of Civil Engineering, Vol. 25, pp. 692-704.

Chaallal, O., Nollet, M.J., Saleh, K. (1998c). "Use of CFRP strips for Flexure and Shear Strengthening of RC members", Proceedings of the Second International Conference on Composites in Infrastructure, edited by Saadtamanesh H. and Ehsani M. R., Tucson, Arizona, USA.

Chaallal, O., Shahawy, M., Hassan, M. (2002). "Performance of Reinforced Concrete T-Girders Strengthened in Shear with Carbon Fiber-Reinforced Polymer Fabric", ACI Structural Journal, Vol. 99 (3), pp. 335-343.

Chajes, M. J., Januszka, T. F., Mertz, D. R., Thomson, T. A. (1996a). "Shear Strengthening of Reinforced Concrete Beams Using Externally Applied Composite Fabrics", ACI Structural Journal, Vol. 92 (3), pp. 295-303.

Chajes, M. J., Finch, W. W., Januszka, T. F., Thomson, T. A. (1996b). "Bond and Force Transfer of Composite Material Plates Bonded to Concrete", ACI Structural Journal, Vol. 93 (2), pp. 208-217.

Chen, J. F., Yang, Z. J., Pan, X. M., Holt, G. D. (2001). "Effect of Test Methods on Plate-to-Concrete Bond Strength", Proceedings of the Fifth International Conference on Fibre-reinforced Plastics for Reinforced Concrete Structures, edited by C. J. Burgoyne, Cambridge, UK, pp. 429-438.

Chen, J. F., Teng, J. G. (2001). "Anchorage Strength Models for FRP and Steel Plates Bonded to Concrete", Journal of Structural Engineering, ASCE, Vol. 127 (7), pp. 784-791.

Clément, J. L., Dumas, C., Belhoul, M. (1998). "Numerical simulations of R/C beams strengthened by carbon fiber cloth", Proceedings of Computational Modelling of Concrete Structures, edited by Borst, Bicanic, Mang and Meschke, Balkema, Rotterdam, pp. 741-748.

Colotti, V., Spadea, G. (2001). "Shear Strength of RC Beams Strengthened with Bonded Steel or FRP Plates", Journal of Structural Engineering, ASCE, Vol. 127 (4), pp. 367-373.

Colotti, V., Spadea, G., Swamy, R. N. (2004). "Structural Model to Predict the Failure Behavior of Plated Reinforced Concrete Beams", Journal of Composites for Construction, ASCE, Vol. 8 (2), pp. 104-122.

Collins, M. P. (2001). "Evaluation of shear design procedures for concrete structures", A report prepared for the CSA Technical Committee on Reinforced Concrete Design, Canada, 2001.

Comisión Permanente del Hormigón (1999). "Instrucción del hormigón estructural", EHE, Ministerio de Fomento, pp. 435.

Crasto, A. S., Kim, R. Y., Mistretta, J. P. (1996). "Rehabilitation of concrete bridge beams with externally bonded composites plates. Part II", Proceedings of the 41st International SAMPE Symposium and Exhibition, edited by G. Schmitt et al., Anaheim, California, USA, pp. 1269-1279.

Cress, M. (2000). "FRP composites applications around the world", Presentation of the FHWA Study Tour for Advanced Composites in Bridges in Europe and Japan, Portland, Oregon.

David, E., Djelal, C., Buyle-Bodin, F. (1998). "Repair and strengthening of reinforced concrete beams using composite materials", Proceedings of the Second International PhD Symposium in Civil Engineering, Budapest, pp. 1-8.

Deblois, M., Picard, A., Beaulieu, D. (1992). "Renforcement de poutres en béton armé à l'aide de matériaux composites: études théorique et expérimentale", Proceedings of the First International Conference on Advanced Composites Materials in Bridges and Structures, Canadian Society for Civil Engineering, Ottawa, Canada, pp. 205-275.

De Lorenzis, L., Miller, B., Nanni, A. (2001). "Bond of Fiber-Reinforced Polymer Laminates to Concrete", ACI Materials Journal, Vol. 98 (3), pp. 256-264.

Dias, S. J. E., Juvandes, L. F. P., Figueiras, J. A. (2000). "Comportamento de Faixas de Laje Reforçadas com Sistemas Compósitos de CFRP Unidireccional", Proceedings of REPAR 2000, LNEC, Lisboa, Portugal.

Dias, S. J. E., Juvandes, L. F. P., Figueiras, J. A. (2000). "Eficiência do reforço de vigas de betão armado com sistemas compósitos de CFRP unidireccionais", Proceedings of Betão Estructural 2000, FEUP, Porto, Portugal

El-Mihilmy, M., Tedesco, J. (2001). "Prediction of Anchorage Failure for Reinforced Concrete Beams Strengthened with Fiber-Reinforced Polymer Plates", *ACI Structural Journal*, Vol. 98 (3), pp. 301-314.

El-Refaie, S. A., Ashour, A. F., Garrity, S. W. (2002). "Premature failure of RC continuous beams strengthened with CFRP laminates", *Proceedings of the Advanced Composites in Construction 2002*, edited by Thomas Telford, London, Paper 2.12., pp. 164-175.

Fanning, P. J., Kelly, O. (2001). "Ultimate Response of RC Beams Strengthened with CFRP Plates", *Journal of Composites for Construction*, ASCE, Vol. 5 (2), pp. 122-127.

Ferrier, E., Hamelin, P. (2002). "Long-time concrete-composite interface characterization for reliability prediction of RC beam strengthened with FRP", *Materials and Structures*, Vol. 35, pp. 564-572.

FIB Task Group 9.3 FRP Reinforcement for Concrete Structures. (2001). "Externally bonded FRP reinforcement for RC structures", *Technical report on the Design and use of externally bonded fibre reinforced polymer reinforcement (FRP EBR) for reinforced concrete structures*, pp 130.

Frostig, Y., Baruch, M., Vilnay, O., Sheinman, I. (1992). "High-Order Theory for Sandwich Beam Behavior with Transversely Flexible Core", *Journal of Engineering Mechanics*, ASCE, Vol. 118 (5), pp. 1026-1043.

Garden, H. N., Hollaway, L. C. (1997). "A preliminary evaluation of carbon fibre reinforced polymer plates for strengthening reinforced concrete members", *Proceedings Institution of Civil Engineers. Structures and Buildings*, Vol. 123, pp. 127-142.

Garden, H. N., Hollaway, L. C. (1998). "An experimental study of the failure modes of reinforced concrete beams strengthened with prestressed carbon composite plates", *Composites Part B*, Vol. 29B (1998), pp. 411-424.

GangaRao, H., Vijay, P. V. (1998). "Bending Behavior of Concrete Beams Wrapped with Carbon Fabric", *Journal of Structural Engineering*, ASCE, Vol. 124 (1), pp. 3-10.

Godes, A., Cots, C. (2002). "Refuerzo de estructuras de hormigón mediante adhesión de materiales compuestos. Formatos y aplicaciones", *II Congreso de ACHE Puentes y Estructuras de edificación*, Madrid, pp. 297-305.

Gómez Pulido, M. D., Sobrino, J. (1998). "Refuerzo de estructuras de hormigón con materiales compuestos con fibra de carbono. Aplicación al Puente de Can Dragó, Barcelona", *Hormigón y acero* n° 210, pp. 55-72.

Grace, N. F., Abdel-Sayed, G., Ragheb, W. F. (2002). "Strengthening of Concrete Beams Using Innovative Ductile Fiber-Reinforced Polymer Fabric", *ACI Structural Journal*, Vol. 99 (5), pp. 692-700.

Harmon, T. G., Kim, Y. J., Kardos, J., Johnson, T., Stark, A. (2003). "Bond of Surface-Mounted Fiber-Reinforced Polymer Reinforcement for Concrete Structures", *ACI Structural Journal*, Vol. 100 (5), pp. 557-564.

Hassanen, M. A. H., Raoof, M. (2001). "Design against premature peeling failure of RC beams with externally bonded steel or FRP plates", *Magazine of Concrete Research*, Vol. 53 (4), pp. 251-262.

Hefferman, P. J., Erki, M. A. (1996). "Equivalent capacity and efficiency of reinforced concrete beams strengthened with carbon fiber reinforced concrete beams strengthened with carbon fiber reinforced plastic sheets", *Canadian Journal of Civil Engineering*, Ottawa, Vol. 23, pp. 21-29.

Hiroyuki, Y., Wu, Z. (1997). "Analysis of debonding fracture properties of CFS strengthened member subject to tension", *Proceedings of the 3rd International Symposium on Non-Metallic (FRP) Reinforcement for Concrete Structures*, Japan Concrete Institute, Sapporo, pp. 287-294.

Horiguchi, T., Saeki, N. (1997). "Effect of test methods and quality of concrete on bond strength of CFRP sheet", *Proceedings of the 3rd International Symposium on Non-Metallic (FRP) Reinforcement for Concrete Structures*, Japan Concrete Institute, Sapporo, pp. 265-270.

Hormann, M., Seible, F., Karbhari, V., Seim, W. (1998). "Preliminary Structural Tests for Strengthening of Concrete Slabs using FRP Composites", Report n.TR-98/13. Division of Structural Engineering Systems Research Project, University of California San Diego.

Hussain, M., Sharif, A., Basunbul, I. A., Baluch, M. H., Al-Sulaimani, G. J. (1995). "Flexural behaviour of precracked concrete beams strengthened externally by steel plates", *ACI Structural Journal*, Vol. 92 (1), pp. 14-22.

Hutchinson, A. R., Rahimi, H. (1996). "Flexural Strengthening of concrete beams with externally-bonded FRP reinforcement", *Proceedings of the Second International Conference of Advanced Composite Materials in Bridges and Structures*, edited by El-Badry MM, Quebec, Canada, pp. 419-426.

Irwin, G. R. (1957). "Analysis of stresses and strains near the end of a crack traversing a plate", *Journal of Applied Mechanics*, ASME, pp. 361-364.

Jansze W. (1997), "Strengthening of reinforced concrete members in bending by externally bonded steel plates. Design for beam shear and plate anchorage", Thesis, T.U. Delft, The Netherlands, 1997.

Jones, R., Swamy, R. N., Bloxham, J., Bouderbalah, A. (1980). "Composite Behavior of Concrete Beams with Epoxy Bonded External Reinforcement", *The International Journal of Cement Composites*, Vol. 2 (2), pp. 91-107.

Jones, R., Swamy, R. N., Charif, A. (1988). "Plate separation and anchorage of reinforced concrete beams strengthened with epoxy-bonded external reinforcement", *The Structural Engineer*, Vol. 66 (5), pp. 85-94.

Juvandes, L. F. P. (1999). "Reforço e Reabilitação de estruturas de betão usando materiais compósitos de CFRP", Thesis, Universidad do Porto. Faculdade de Engenharia, Porto, Portugal, 1999.

Karbhari, V. (2001). SE142. Design of Composite Structures, Notes, University of California San Diego, USA.

Kaw, A.K. (1997). *Mechanics of Composite Materials*, CRC, USA, pp. 329.

Khalifa, A., Tumialan, G., Nanni, A., Belarbi A (1999a). "Shear strengthening of Continuous RC Beams using Externally Bonded CFRP Sheets", *Proceedings of the 4th International Symposium on FRP for Reinforcement of Concrete Structures*, Baltimore, USA, pp. 995-1008.

Khalifa, A., Tumialan, G., Nanni, A., Belarbi A (1999b). "Rehabilitation of Rectangular Simply Supported RC Beams with Shear Deficiencies Using CFRP Composites", *Construction and Building Materials*.

Khalifa, A., De Lorenzis, L., Nanni, A. (2000a). "FRP Composites for Shear Strengthening of RC Beams", *Proceedings of the 3rd International Conference on Advanced Composite Materials in Bridges and Structures*, edited by J. Humar and A. G. Razaqpur, Ottawa, Canada, pp. 137-144.

Khalifa, A., Belarbi, A., Nanni, A. (2000b). "Shear performance of RC Members Strengthened with Externally Bonded FRP Wraps", *Proceedings of the 12th World Conference on Earthquake Engineering*, Auckland, New Zealand, paper 305, pp. 1-10.

Kim, W., White, R. N. (1991). "Initiation of shear cracking in reinforced concrete beams with no web reinforcement", *ACI Structural Journal*, Vol. 88 (3), pp. 301-308.

Kim, D., Sebastian, W. M. (2002). "Parametric study of bond failure in concrete beams externally strengthened with fibre reinforced polymer plates", *Magazine of Concrete Research*, Vol. 54 (1), pp. 47-59.

Kishi, N., Mikami, H., Matsuoka, K. G., Kurihashi, Y. (2001). "Failure behavior of flexural strengthened RC beams with AFRP sheet", *Proceedings of the Fifth International Conference on Fibre-reinforced Plastics for Reinforced Concrete Structures*, edited by C. J. Burgoyne, Cambridge, UK, pp. 87-95.

Kupfer, H. B., Gerstle, K. H. (1973). "Behavior of concrete under biaxial stresses", *Journal of Engineering Mechanics Division*, ASCE, Vol. 99 (4), pp. 853-866.

Kuriger, R. J., Sargand, S. M., Ball, R., Alam, M. K. (?). "Analysis of Composite Reinforced Concrete Beams", *Russ College of Engineering and Technology*, Ohio University, Athens.

Lamanna, A. J., Bank, L. C., Scott, D. W. (2001). "Flexural Strengthening of Reinforced Concrete Beams Using Fasteners and Fiber-Reinforced Polymer Strips", *ACI Structural Journal*, Vol. 98 (3), pp. 368-376.

Landa, G. (2002). "Estudio experimental sobre el refuerzo a cortante de estructuras de hormigón mediante materiales compuestos", Thesis, Departament Enginyeria de la Construcció, Universitat Politècnica de Catalunya, Spain, 2002.

Li, A., Diagana, C., Delmas, Y. (2001). "CFRP contribution to shear capacity of strengthened RC beams", *Engineering Structures*, Vol. 23 (2001), pp. 1212-1220.

Luk, H. C. Y., Leung, C. K. Y. (2002). "Effect of flexural cracking on plate end shear stress in FRP-strengthened beams", *Proceedings of the Advanced Composites in Construction 2002*, edited by Thomas Telford, London, Paper 2.5., pp. 101-108.

Maalej, M., Bian, Y. (2001). "Interfacial shear stress concentration in FRP-strengthened beams", *Composite Structures*, Vol. 54 (2001), pp. 417-426.

Maeda, T., Asano, Y., Sato, Y., Ueda, T., Kakuta, Y. (1997). "A study on bond mechanism of carbon fiber sheet", *Proceedings of the 3rd International Symposium on Non-Metallic (FRP) Reinforcement for Concrete Structures*, Japan Concrete Institute, Sapporo, pp. 279-286.

Malek, A. M.; Saadatmanesh, H., Ehsani, M. R. (1996). "Shear and normal stress concentrations in RC beams strengthened with FRP plates", *Proceedings of the Second International Conference of Advanced Composite Materials in Bridges and Structures*, edited by El-Badry MM, Quebec, Canada, pp. 629-637.

Malek, A. M., Saadatmantesh, H. (1998). "Ultimate Shear Capacity of Reinforced Concrete Beams Strengthened with Web-Bonded Fiber-Reinforced Plastic", *ACI Structural Journal*, Vol. 95 (4), pp. 391-399.

Malek, A. M., Saadatmantesh, H., Ehsani M. R. (1998). "Prediction of Failure Load of R/C Beams Strengthened with FRP Plate Due to Stress Concentration at the Plate End", *ACI Structural Journal*, Vol. 95 (1), pp. 142-152.

Mayo, R., Nanni, A., Gold, W., Barrer, M. (1999). "Strengthening of Bridge G270 with Externally-Bonded CFRP Reinforcement", *Proceedings of the 4th International Symposium on FRP for Reinforcement of Concrete Structures (FRPRCS4)*, American Concrete Institute, Baltimore, pp. 429-440.

McGregor, J. (1997). "Reinforced Concrete: mechanics and design", Prentice Hall, New Jersey, USA, 3rd edition, pp. 939

Meier, U. (1995). "Strengthening of Structures using Carbon Fibre Epoxi Composites", *Construction and Building Materials*, Vol. 9 (6), pp. 341-351.

Miller, B., Nanni, A. (1999). "Bond between CFRP Sheets and Concrete", *Proceedings of the Fifth Materials Congress ASCE*, edited by L. C. Bank, Cincinnati, USA, pp. 240-247.

Mukhopadhyaya, P., Swamy, N. (2001). "Interface Shear Stress: A New Design Criterion for Plate Debonding", *Journal of Composites for Construction*, ASCE, Vol. 5 (1), pp. 35-43.

Mukhopadhyaya, P., Swamy, N., Lyndsale, C. (1998). "Optimizing Structural Response of Beams Strengthened with GFRP Plates", *Journal of Composites for Construction*, ASCE, Vol. 2 (2), pp. 87-95.

Nakaba, K., Kanakubo, T., Furuta, T., Yoshizawa, H. (2001). "Bond Behavior between Fiber-Reinforced Polymer Laminates and Concrete", *ACI Structural Journal*, Vol. 98 (3), pp. 359-367.

Nanni, A. (1993). "Flexural Behavior and Design of RC members Using FRP Reinforcement", *Journal of Structural Engineering*, ASCE, Vol. 119 (11), pp. 3344-3359.

Neubauer, U., Rostásy, F. S. (1997) "Design aspects of concrete structures strengthened with externally bonded CFRP-plates", *Proceedings of the 7th International Conference on Structural Faults and Repair*, Edinburgh, United Kingdom, pp. 191-196.

Neubauer, U. (2000). "Verbundtragverhalten geklebter Lamellen aus Kohlenstoffaser-Verbundwerkstoff zur Verstärkung von Betonbauteilen", Thesis, Institut für Baustoffe, Massivbau und Brandschutz, TU Braunschweig, Germany, 2000.

Norris, T., Saadatmanesh, H., Ehsani, M. (1997). "Shear and Flexural Strengthening of R/C Beams with Carbon Fiber Sheets", *Journal of Structural Engineering*, ASCE, Vol. 123 (7), pp. 903-911.

Nguyen, D. M., Chan, T. K., Cheong, H. K. (2001). "Brittle Failure and Bond Development Length of CFRP-Concrete Beams", *Journal of Composites for Construction*, ASCE, Vol. 5 (1), pp. 12-17.

Oelhers, D. J., Moran, J. P. (1990). "Premature Failure of Externally Plated Reinforced Concrete Beams", *Journal of Structural Engineering*, ASCE, Vol. 116 (4), pp. 978-995.

Oelhers, D. J. (1992). "Reinforced Concrete Beams with Plated Glued to their Soffits", *Journal of Structural Engineering*, ASCE, Vol. 118 (8), pp. 2023-2038.

Oller, E., Salcedo, J., Cobo, D., Marí, A. R. (2001). "Flexural Strengthening of reinforced concrete beams with externally bonded CFRP laminates", *Proceedings of Composites in Constructions 2001*, edited by J. Figueiras et al., Balkema, Porto, Portugal, pp. 487-491.

Oller, E., Cobo, D., Marí, A. R. (2002). "Refuerzo a flexion de vigas de hormigón armado con laminados CFRP", *II Congreso de ACHE Puentes y Estructuras de edificación*, Madrid, pp. 561-570.

Oller, E., Cobo, D., Marí, A. R. (2004) "Refuerzo a flexión de vigas de hormigón armado con materiales compuestos. Estudio de la zona de anclaje". *Revista Hormigón y Acero* núm. 234 (2004 trimestre 2), pp 97-112.

Oller, S. (2001). *Fractura Mecánica. Un enfoque global*, Centro Internacional de Métodos Numéricos en Ingeniería, Barcelona, España, pp. 288.

Pěšic, N., Pilakoutas, K. (2003). “Concrete beams with externally bonded flexural FRP-reinforcement: analytical investigation of debonding failure”, *Composites Part B: engineering*, Vol. 34 (2003), pp. 327-338.

Podolka, L. (2001). “Strengthening beams by means of CFK strips”, *Proceedings of Composites in Constructions 2001*, edited by J. Figueiras et al., Balkema, Porto, Portugal, pp. 487-491.

Poulsen, E., Bendtsen, L., Mortensen, J., Ottosen, N. (2001). “Anchorage and laps of CFRP strips for the strengthening of RC structural components”, *Proceedings of Composites in Constructions 2001*, edited by J. Figueiras et al., Balkema, Porto, Portugal, pp. 205-209.

Quantrill, R. J., Hollaway, L. C., Thorne, A. M. (1996a). “Predictions of the Maximum Plate End Stresses of FRP Strengthened Beams: Part II”, *Magazine of Concrete Research*, Vol. 48 (177), pp. 343-351.

Quantrill, R. J., Hollaway, L. C., Thorne, A. M. (1996b). “Experimental and Analytical Investigation of FRP Strengthened Beam Response: Part I”, *Magazine of Concrete Research*, Vol. 48 (177), pp. 331-342.

Raghu, A., Mettemeyer, M., Myers, J. J., Nanni, A. (2000). “An Assessment of In-Situ FRP Shear and Flexural Strengthening of Reinforced Concrete Joists”, *Proceedings of the ASCE Structures Congress 2000*, edited by M. Elgaaly, Philadelphia, pp. 1-8.

Rahimi, H., Hutchinson, A. (2001). “Concrete Beams Strengthened with Externally Bonded FRP Plates”, *Journal of Composites for Construction*, ASCE, Vol. 5 (1), pp. 44-56.

Ramana, V. P. V., Kant, T., Morton, S. E., Dutta, P. K., Mukherjee, A., Desai, Y. M. (2000). “Behavior of CFRPC strengthened reinforced concrete beams with varying degrees of strengthening”, *Composites Part B: engineering*, Vol. 31 (2000), pp. 461-470.

Raof, M., Zhang, S. (1997). “An insight into the structural behaviour of reinforced concrete beams with externally bonded plates”, *Proceedings Institution of Civil Engineers. Structures and Buildings*, Vol. 122, pp. 477-492.

Raof, M., El-Rimawi, J. A., Hassanen, M. A. H. (2000a). “Theoretical and experimental study on externally plated R.C. beams”, *Engineering Structures*, Vol. 22 (2000), pp. 85-101.

Raof, M., Hassanen, M. A. H. (2000b). “Peeling failure of reinforced concrete beams with fibre-reinforced plastic or steel plates glued to their soffits”, *Proceedings Institution of Civil Engineers. Structures and Buildings*, Vol. 140, pp. 291-305.

Ravinovich, O., Frostig, Y. (2000). "Closed-Form High-Order Analysis of RC Beams strengthened with FRP Strips", *Journal of Composites for Construction*, ASCE, Vol. 4 (2), pp. 65-74.

Ravinovich, O., Frostig, Y. (2001a). "Nonlinear High-Order Analysis of Cracked RC Beams Strengthened with FRP Strips", *Journal of Structural Engineering*, ASCE, Vol. 127 (4), pp. 381-389.

Ravinovich, O., Frostig, Y. (2001b). "High-Order Approach for the Control of Edge Stresses in RC Beams Strengthened with FRP Strips", *Journal of Structural Engineering*, ASCE, Vol. 127 (7), pp. 799-809.

Ravinovich, O., Frostig, Y. (2003). "Experiments and analytical comparison of RC beams strengthened with CFRP composites", *Composites Part B: engineering*, Vol. 34 (2003), pp. 663-677.

Ritchie, P. A., Thomas, D. A., Lu, L., Connelly, G. (1991). "External Reinforcement of Concrete Beams Using Fiber Reinforced Plastics", *ACI Structural Journal*, Vol. 88 (4), pp. 491-500.

Roberts, T.M. (1989). "Approximate analysis of shear and normal stress concentrations in the adhesive layer of plated RC Beams", *The Structural Engineer*, Vol. 67 (12), pp. 229-233.

Roberts, T.M., Haji-Kazemi, H. (1989). "Theoretical study of the behaviour of reinforced concrete beams strengthened by externally bonded steel plates", *Proceedings Institution of Civil Engineers*, Vol. 87, Part 2, pp. 39-55.

Ross, A., Jerome, D. M., Tedesco, J. W., Hughes, M. L. (1999). "Strengthening of Reinforced Concrete Beams with Externally Bonded Composite Laminates", *ACI Structural Journal*, Vol. 96 (2), pp. 212-220.

Rostásy, F.S., Neubauer, U. (1997a). "Bond behaviour of CFRP laminates for the strengthening of concrete members", *Composite Construction - Conventional and Innovative*, IABSE International Conference, Innsbruck, Austria, pp. 717-722.

Róstasy, F.S. (1998). "Assessment of the suitability of CFRP Plates from the S&P CFRP system for use as adhesive-bonded reinforcement to strengthen concrete constructional elements, and bases of assessment for their general approval by the construction supervisory authorities", *Expert opinion n°98/0322*, S&P Clever Reinforcement.

S&P (2000). "Design Guide of FRP Fibre Reinforcement Polymer for S&P products", S&P Clever Reinforcement.

Saadatmanesh, H., Ehsani, M. (1990) "Fiber composite plates can strengthen beams", *Concrete International*, Vol. 12 (3), pp. 65-71.

- Saadatmanesh, H., Ehsani, M. (1991a) "RC Beams strengthened with GFRP plates: I: experimental studies", *Journal of Structural Engineering*, ASCE, Vol. 117 (1), pp. 3417-3433.
- Saadatmanesh, H., Ehsani, M. (1991b), "RC Beams strengthened with GFRP plates: II: analysis and parametric study", *Journal of Structural Engineering*, ASCE, Vol. 117 (1), pp. 3434-3455.
- Saadatmanesh, H., Malek, A. M. (1998), "Design Guidelines for Flexural Strengthening of RC Beams with FRP Plates", *Journal of Composites for Construction*, ASCE, Vol. 2 (4), pp. 158-164.
- Salaverría, J. (2002). "Utilización de nuevos materiales para la reparación y refuerzo de puentes", Thesis, Departament Enginyeria de la Construcció, Universitat Politècnica de Catalunya, Spain, 2002.
- Sakai, K., Uchida, Y., Okamoto, J., Yoshita, H., Komatsu, K. (1992). "Flexural Performance of a Steel Reinforced Concrete Beam Reinforced with Carbon Sheet", *Proceedings of the 47th Meeting of the Japan Society of Civil Engineers*.
- Sato, Y., Vecchio, F. J. (2003). "Tension Stiffening and Crack Formation in Reinforced Concrete Members with Fiber-Reinforced Polymer Sheets", *Journal of Structural Engineering*, ASCE, Vol. 129 (6), pp. 717-724.
- Sebastian, W. (2001). "Significance of midspan debonding failure in FRP-plated concrete beams", *Journal of Structural Engineering*, ASCE, Vol. 127 (7), pp. 792-798.
- Seim, W., Karbhari, V., Seible, F. (1999a). "Post-Strengthening of Concrete Slabs with Externally Bonded Fiber Reinforced Polymer (FRP) Strips - Analytical Approach and Design Recommendations", Report of the Division of Structural Engineering Systems Research Project, University of California San Diego.
- Seim, W., Karbhari, V., Seible, F., Vasquez, A. (1999b). "Post-Strengthening of Concrete Slabs with Externally Bonded Fiber Reinforced Polymer (FRP) Strips - Test on Full Scale Slabs", Report of the Division of Structural Engineering Systems Research Project, University of California San Diego.
- Seim, W., Hörmann, M., Karbhari, V., Seible, F. (2001). "External FRP Poststrengthening of scaled concrete slabs", *Journal of Composites for Construction*, ASCE, Vol. 5 (2), pp. 67-75.
- Shahawy, M. A., Arockiasamy, M., Beitelman, T., Sowrirajan, R. (1996). "Reinforced concrete rectangular beams strengthened with CFRP laminates", *Composites Part B: engineering*, Vol. 27 (1996), pp. 225-233.
- Shahawy, M., Chaallal, O., Beitelman, T., El-Saad, A. (2001). "Flexural Strengthening with Carbon Fiber-Reinforced Polymer Composites of Preloaded Full-Scale Girders", *ACI Structural Journal*, Vol. 98 (5), pp. 735-742.

- Sharif, A., Al-Sulaimani, G. F., Basunbul, I. A., Baluch, M. H. (1994). "Strengthening of Initially Loaded Reinforced Concrete Beams Using FRP plates", *ACI Structural Journal*, Vol. 91 (2), pp. 160-168.
- Shen, H., Teng, J. G., Yang, J. (2001). "Interfacial Stresses in Beams and Slabs Bonded with Thin Plate", *Journal of Engineering Mechanics*, ASCE, Vol. 127 (4), pp. 399-406.
- Smith, S.T., Teng, J.G. (2001a). "Interfacial stresses in plated beams", *Engineering Structures*, Vol. 23, pp. 857-871.
- Smith, S.T., Teng, J.G. (2001b). "Strength Models for Plate End Debonding in FRP-Strengthened RC Beams", *Proceedings of the Fifth International Conference on Fibre-reinforced Plastics for Reinforced Concrete Structures*, edited by C. J. Burgoyne, Cambridge, UK, pp. 419-428.
- Smith, S. T., Teng, J. G., (2002a). "FRP-Strengthened RC beams. I: review of debonding strength models", *Engineering Structures*, Vol. 24 (2002), pp. 385-395.
- Smith, S. T., Teng, J. G., (2002b). "FRP-Strengthened RC beams. II: assessment of debonding strength models", *Engineering Structures*, Vol. 24 (2002), pp. 397-417.
- Souza, R. H., Appleton, J. (2001). "An experimental study about the bond behaviour of a composite material to concrete", *Proceedings of Composites in Constructions 2001*, edited by J. Figueiras et al., Balkema, Porto, Portugal, pp. 227-232.
- Spadea, G., Bencardino, F., Swamy, R. N. (1998). "Structural Behavior of Composite RC Beams with Externally Bonded CFRP", *Journal of Composites for Construction*, ASCE, Vol. 2 (3), pp. 132-137.
- Stallings, J. M., Tedesco, J. W., El-Mihilmy, M., McCauley, M. (2000). "Field Performance of FRP Bridge Repairs", *Journal of Bridge Engineering*, ASCE, Vol. 5 (2), pp. 107-113.
- Swamy, R. N., Jones, R., Charif, A. (1986). "Shear adhesion properties of epoxy resin adhesives", *Proceedings of the International Symposium on Adhesion between Polymers and Concrete*, edited by Chapman and Hall, London, UK, pp. 741-755.
- Swamy, R. N., Jones, R., Charif, A. (1989). "The Effect of External Plate Reinforcement on the Strengthening of Structurally Damaged RC Beams", *Structural Engineer*, Vol. 67 (3/7), pp. 45-46.
- Swamy, R. N., Mukhopadhyaya, P. (1999). "Debonding of carbon-fibre-reinforced polymer plate from concrete beams", *Proceedings Institution of Civil Engineers. Structures and Buildings*, Vol. 134, pp. 301-317.
- Täljsten, B. (1994). "Plate Bonding. Strengthening of Existing Concrete Structures with Epoxy Bonded Plates of Steel or Fibre Reinforced Plastics", Thesis, Luleå University of Technology, Sweden, 1994.

Täljsten, B. (1997). "Strengthening of Beams by Plate Bonding", *Journal of Materials in Civil Engineering*, ASCE, Vol. 9 (4), pp. 206-212.

Täljsten, B. (1999). "Strengthening of existing concrete structures with glued steel plates", *Proceedings of the International RILEM Workshop Analysis of Concrete Structures by Fracture Mechanics*, London. (O es 1989?)

Täljsten, B., Elfgrén, L. (2000), "Strengthening concrete beams for shear using CFRP-materials: evaluation of different application methods", *Composites part B: Engineering*, Vol. 31 (2000), pp. 87-96.

Tan, K. H., Mathivoli, M. (1999). "Behavior of preloaded reinforced concrete beams strengthened with carbon fiber sheets", *Proceedings of the 4th Symposium on FRP for Reinforced Concrete Structures*, American Concrete Institute, Detroit, pp. 159-170.

Thomsen, H., Spacone, E., Limtanyaku, S., Camata, G. (2004) "Failure Mode Analysis of Reinforced Concrete Beams Strengthened in Flexure with Externally Bonded Fiber-Reinforced Polymers", *Journal of Composites for Construction*, ASCE, Vol. 8 (2), pp. 123-131.

Triantafillou, T. C., Deskovic, N., Deuring, M. (1992). "Strengthening of Concrete Structures with Prestressed Fiber Reinforced Plastic Sheets", *ACI Structural Journal*, Vol. 89 (6), pp. 235-244.

Triantafillou, T. C., Plevris, N. (1992). "Strengthening of RC Beams with epoxy-bonded fiber-composite materials", *Materials and Structures*, Vol. 25, pp. 201-211.

Triantafillou, T. C. (1998). "Shear Strengthening of Reinforced Concrete Beams Using Epoxy-Bonded FRP Composites", *ACI Structural Journal*, Vol. 95 (2), pp. 107-115.

Triantafillou, T. C., Antonopoulos, C. (2000). "Design of Concrete Flexural Members Strengthened in Shear with FRP", *Journal of Composites for Construction*, ASCE, Vol. 4 (4), pp. 198-205.

Tripi, J. M., Bakis, C. E., Boothby, T. E., Nanni, A. (2000). "Deformation in Concrete with External CFRP Sheet Reinforcement", *Journal of Composites for Construction*, ASCE, Vol. 4 (2), pp. 85-94.

Tumialan, G., Serra, P., Nanni, A., Belarbi, A. (1999). "Concrete cover delamination in RC beams strengthened in flexure with FRP sheets", *Proceedings of the 4th Symposium on FRP for Reinforced Concrete Structures*, American Concrete Institute, Detroit, pp. 725-735.

Ueda, T., Yamaguchi, R., Shoji, K. (2002). "Study on Behavior in Tension of Reinforced Concrete Members Strengthened by Carbon Fiber Sheet", *Journal of Composites for Construction*, ASCE, Vol. 6 (3), pp. 168-174.

Ulag, T., Vogel, T., Meier, U. (2002). "The premature failure of CFRP laminate strengthened concrete structures: experimental and theoretical findings, and conclusions

for dimensioning”, Proceedings of the First International Conference on Bridge Maintenance, Safety and Management, IABMAS 2002, Barcelona, pp. 1-9.

Varastehpour, H. (1996). “Analysis and study of failure mechanism of RC beam strengthened with FRP plate”, Proceedings of the Second International Conference of Advanced Composite Materials in Bridges and Structures, edited by El-Badry MM, Quebec, Canada, pp. 527-536.

Varastehpour, H., Hamelin, P. (1997). “Strengthening of concrete beams using fiber-reinforced plastics”, Materials and Structures, Vol. 30, pp. 160-166.

Vasquez, A. (1999). “The Use of Carbon Fiber Reinforced Polymer Strips for the External Strengthening of Slabs”, Master Thesis, University of California San Diego, USA, 1999.

White, T. W., Soudki, K. A., Erki, M. A. (2001). “Response of RC Beams Strengthened with CFRP Laminates and Subjected to a High Rate of Loading”, Journal of Composites for Construction, ASCE, Vol. 5 (3), pp. 153-162.

Wight, R. G., Green, M. F., Erki, M. A. (2001). “Prestressed FRP Sheets for Poststrengthening Reinforced Concrete Beams”, Journal of Composites for Construction, ASCE, Vol. 5 (4), pp. 214-220.

Yang, J., Chen, J. F., Teng, J. G. (2002). “Interfacial stresses in plated RC Beams under arbitrary symmetric loads: a high-order closed-form solution”, Proceedings of the Advanced Composites in Construction 2002, edited by Thomas Telford, London, Paper 2.11., pp. 153-163.

Yang, J., Ye, J. (2002). “Interfacial stresses in plated beams with cracks”, Composite Structures, Vol. 57 (2002), pp. 125-134.

Yang, J., Teng, J. G., Chen, J. F. (2004). “Interfacial stresses in soffit-plated reinforced concrete beams”, Proceedings of the Institution of Civil Engineers. Structures and Buildings Vol. 157, pp. 77-89.

Zhang, S., Raoof, M., Wood, L. A. (1995). “Prediction of peeling failure of reinforced concrete beams with externally bonded steel plates”, Proceedings Institution of Civil Engineers. Structures and Buildings, Vol. 110, pp. 257-268.

Zhang, J. P. (1997). “Diagonal cracking and shear strength of reinforced concrete beams”, Magazine of Concrete Research, Vol. 49 (178), pp. 55-65.

Ziraba, Y. N., Baluch, M. H., Basunbul, I. A., Sharif, A. M., Azad, A. K., Al-Sulaimani, G. J. (1994). “Guidelines towards the design of reinforced concrete beams with external plates”, ACI Structural Journal, Vol. 91 (6), pp. 639-646.

