

Special issue: Mitigating urban heat island using cool roof technologies**Special issue editor: Mat Santamouris****CONTENTS**

- Cool roofs for passive cooling: performance in different climates and for different insulation levels in Italy
Vincenzo Costanzo, Gianpiero Evola and Luigi Marletta 155
- Evaluating the performance of bioclimatic indices on quantifying thermal sensation for pedestrians
K. Pantavou, M. Santamouris, D. Asimakopoulos and G. Theoharatos 170
- The climate effects of increasing the albedo of roofs in a cold region
Ali Gholizadeh Touchaei and Hashem Akbari 186
- Cool roof and ventilation efficiency as passive cooling strategies for commercial low-rise buildings – ground thermal inertia impact
Remon Lapisa, Emmanuel Bozonnet, Marc Olivier Abadie and Patrick Salagnac 192
- Active cool roof effect: impact of cool roofs on cooling system efficiency
Anna Laura Pisello, Mattheos Santamouris and Franco Cotana 209
- An energy-balanced analytic model for urban heat canyons: comparison with experimental data
Emanuele Bonamente, Federico Rossi, Valentina Coccia, Anna Laura Pisello, Andrea Nicolini, Beatrice Castellani, Franco Cotana, Mirko Filipponi, Elena Morini and Matheos Santamouris 222
- Cooling roofs through low temperature solar-heat transformations in hydrophilic porous materials
D. Karamanis, E. Kyritsi, S. Krimpali, E. Vardoulakis, G. Gorgolis, V. Kapsalis, G. Mihalakakou and N. Ökte 235
- Influence of the irradiance spectrum on solar reflectance measurements
Chiara Ferrari, Antonio Libbra, Alberto Muscio and Cristina Siligardi 244
- Cool roofs as a strategy to tackle global warming: economical and technical opportunities
F. Rossi, F. Cotana, M. Filipponi, A. Nicolini, S. Menon and A. Rosenfeld 254