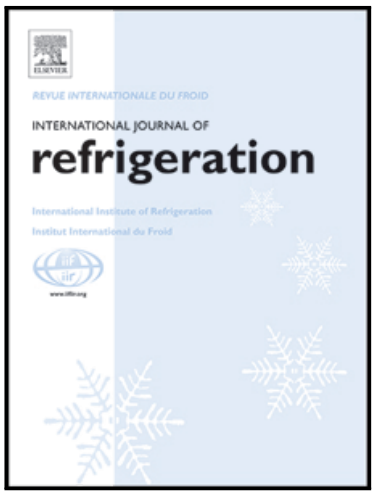

Research on improving thermal and humidity conditions in a ventilated ice rink arena using a validated CFD model

Agnieszka Palmowska , Barbara Lipska

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Highlights

- CFD ice rink model which includes humidity ratio effects is presented.
- CFD ice rink model was previously validated using the measurements data.
- Paper investigates the effect of several air handling methods.
- The purpose was to prevent fogging and ceiling condensation using CFD.
- Influence of five factors on thermal and humidity conditions was assessed.
- Guidelines for ice rink ventilation systems design and operation were indicated.