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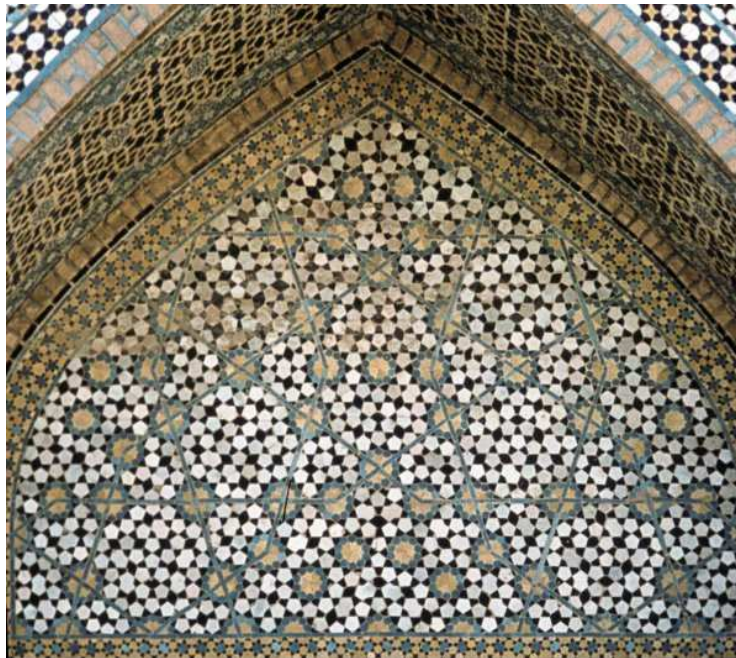
Quasicrystals, Almost Periodic Patterns, Mean-periodic Functions and Irregular Sampling

by

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Abstract: Three properties of *quasicrystals* will be proved in this essay. Quasicrystals are *almost periodic patterns* (such patterns are carefully defined below). Every *mean-periodic function* whose spectrum is contained in a quasicrystal is almost periodic. Finally simple quasicrystals are *universal sampling sets*.



Portal from the Darb-i Imam Shrine at Isfahan, Iran (1453 AD).

[Peter J. Lu and Paul J. Steinhardt, "Decagonal and Quasicrystalline Tilings in Medieval Islamic Architecture," Science (2007).]

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