

# Chapter II

## From filament to gel: effective medium theory

### I) Maxwell's constraint counting argument

### II) Effective medium theory for a simple network

1. Formulating the self-consistency condition
2. Elasticity of the surrounding medium

#### *References:*

J. C. Maxwell, *Philos. Mag.* **27**, 294 (1864)

C. R. Calladine, *Int. J. Solids Structures* **14**, 161 (1978)

Feng & Thorpe, *Phys. Rev. B* **31**, 276 (1985)