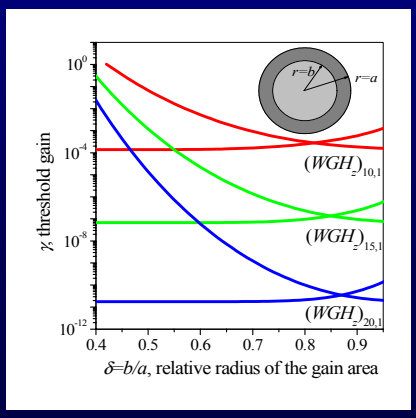
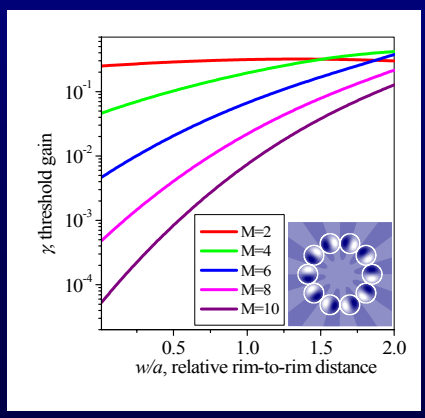
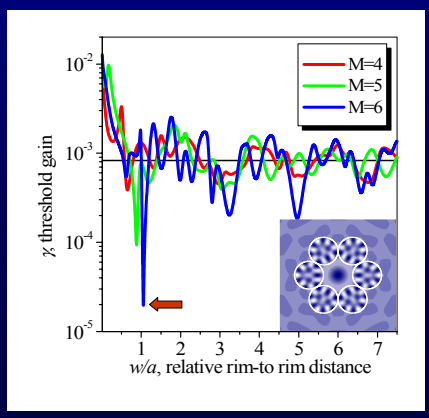
Linear optical modelling of microcavity lasers

Features of linear optical analysis with an account of active region:

- Wavelength-scale microcavities are analyzed accurately
  - ray-optics approximation is not used
- Account of the active region shape and location
  - modelling of injection electrodes and focused photopump shape
- Quantification of the lasing thresholds and frequencies
  - non-linear theories of lasing are not used
- Field continuity conditions are demanded at boundaries
- The radiation condition is satisfied implicitly
  - light emission is simulated in adequate manner
- Boundary-value problem is reduced equivalently to the integral equations with favourable features
  - Fredholm nature of IEs guarantees the convergence of numerical solutions
- Integration along the cavity boundary
- High accuracy & high speed of computations
  - suitable for numerical optimization and synthesis







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