

# Teilhard's Mysticism: Spiraling into the Cosmic Christ Retreat Registration Form

Friday, June 16—6:00-9:00 pm  
Saturday, June 17—9:00 am-5:00 pm  
Sunday, June 18—1:00-5:00 pm

Name \_\_\_\_\_

Address \_\_\_\_\_

City/St/Zip \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

Dietary Restrictions \_\_\_\_\_

**Suggested Donation: \$75 (please donate what you can afford)** — Price includes coffee, tea, cold water, & snacks throughout the weekend. A light lunch will be served on Sunday only. *Saturday bring your own bag lunch or visit a local restaurant (a guide to local restaurants will be provided).*

**Make checks payable to ELPC.**

\$\_\_\_\_\_ Check Enclosed

**Please return to:**  
**Rev. Mary Lynn Callahan, ELPC, 116 S.  
Highland Ave, Pittsburgh, PA 15206**

If you have questions or for more information, please contact Rev. Mary Lynn Callahan [MaryLynn@coh.net](mailto:MaryLynn@coh.net) or 412-441-3800 x141.

**Parking:** It is recommended that you park in the lot off Baum Boulevard behind the Carnegie Library which has 4-hour meters rather than the 2-hour meters that are on the street. Guests with limited mobility may be dropped off at ELPC's circle drive on Highland Avenue before Parking.

**and God said,**

$$E = hf = hc/\lambda, \quad eV_0 = hf - W, \quad E = mc^2, \quad E^2 = P^2c^2 + m^2c^4, \quad \Psi(x,t) = \int_{-\infty}^{\infty} A(k) e^{i(kx - \omega t)} dk,$$

$$p = h/\lambda, \quad \Psi(x,t) = e^{i(kx - \omega t)} \int_{-\infty}^{\infty} A(k) e^{i(kx - \omega t - \phi)} dk, \quad v = \left( \frac{\partial \omega}{\partial k} \right)_k, \quad E = p^2/2m,$$

$$\Psi(x,t) = e^{i(kx - \omega t)} \int_{-\infty}^{\infty} A(k) e^{i(kx - \omega t - \phi)} dk, \quad v = \left( \frac{\partial \omega}{\partial k} \right)_k, \quad \hbar \omega = \hbar^2 k^2 / 2m = \frac{\hbar^2 k^2}{2m} e^{i(kx - \omega t)}$$

$$E = \hbar^2 k^2 / 2m, \quad E = \hbar \omega = \hbar^2 k^2 / 2m, \quad m_{rel} = \frac{m}{\sqrt{1 - v^2/c^2}}, \quad \frac{\hbar^2 \partial^2 \Psi}{2m \partial x^2} = \hbar \frac{\partial \Psi}{\partial t}$$

$$\frac{\partial^2 \Psi}{\partial x^2} + \frac{2m(E - V)}{\hbar^2} \Psi = 0, \quad \hbar^2 \frac{2m(E - V)}{\hbar^2} = \frac{2m(E - V)}{\hbar^2}, \quad \lambda = \frac{h}{\sqrt{2m(E - V)}}, \quad E = \frac{1}{2} \hbar \omega^2$$

$$E\psi = -\frac{\hbar}{2m} \left( \frac{\partial^2 \psi}{\partial x^2} + \frac{\partial^2 \psi}{\partial y^2} + \frac{\partial^2 \psi}{\partial z^2} \right) - \frac{2e^2}{4\pi\epsilon_0 r} \psi, \quad J = \nabla \times H, \quad \frac{\partial x}{\partial t} + \frac{k}{x} = 0$$

$$J = \frac{1}{r \sin \theta} \left[ \frac{\partial H_z}{\partial \theta} \sin \theta - \frac{\partial H_\theta}{\partial \phi} \right] \hat{a}_r + \frac{1}{r} \left[ \frac{1}{\sin \theta} \frac{\partial H_\theta}{\partial \phi} - \frac{\partial(H_\phi)}{\partial r} \right] \hat{a}_\theta + \frac{1}{r} \left[ \frac{\partial(H_\phi)}{\partial r} - \frac{\partial H_r}{\partial \theta} \right] \hat{a}_\phi$$

$$-\frac{\hbar^2}{2m} \left( \frac{\partial^2 \psi}{\partial x^2} + \frac{\partial^2 \psi}{\partial y^2} + \frac{\partial^2 \psi}{\partial z^2} \right) + V\psi = E\psi, \quad V = -\frac{e^2}{4\pi\epsilon_0 r} = \frac{e^2}{4\pi\epsilon_0 \sqrt{x^2 + y^2 + z^2}}$$

$$\nabla^2 V = \frac{1}{r^2} \frac{\partial}{\partial r} \left( r^2 \frac{\partial V}{\partial r} \right) + \frac{1}{r^2 \sin \theta} \frac{\partial}{\partial \theta} \left( \sin \theta \frac{\partial V}{\partial \theta} \right) + \frac{1}{r^2 \sin^2 \theta} \frac{\partial^2 V}{\partial \phi^2}, \quad J = \lim_{\Delta S \rightarrow 0} \frac{\oint H \cdot d\vec{S}}{\Delta S}$$

$$\nabla \cdot D = \frac{1}{h_1 h_2 h_3} \left[ \frac{\partial}{\partial x} (h_2 h_3 D_x) + \frac{\partial}{\partial y} (h_1 h_3 D_y) + \frac{\partial}{\partial z} (h_1 h_2 D_z) \right]$$

$$P_e = \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \frac{4\pi V_e}{r \ln(B/a)} \sin^2 \beta z \sin^2 \alpha \alpha d\alpha dz = \frac{4\pi V_e}{\ln(B/a)} \left( 1 - \frac{\sin 2\beta l}{2\beta} \right) \sin^2 \alpha l$$

$$J_n(z) = \sum_{m=0}^{\infty} \frac{(-1)^m z^{2m}}{m! \Gamma(m + \nu + 1) 2^{\nu m}}, \quad J_n(z) = \sum_{m=0}^{\infty} \frac{(-1)^m z^{2m}}{m! \Gamma(m - \nu + 1) 2^{-\nu m}}$$

$$\oint E \cdot d\vec{S} = emf = -\int \frac{\partial B}{\partial t} \cdot ds, \quad \oint H \cdot d\vec{S} = I = \int \left( J_r + \frac{\partial D}{\partial t} \right) \cdot ds, \quad \oint H \cdot d\vec{S} = 0 = \int \nabla \cdot D dv$$

$$E_r = \frac{J_e r}{4\pi} \left( \frac{\mu}{\epsilon} \frac{2}{r^2} + \frac{2}{j\omega \epsilon r^3} \right) \cos \theta, \quad E_\theta = \frac{J_e r^2}{4\pi} \left( \frac{j\omega \mu}{r} + \sqrt{\frac{\mu}{\epsilon}} \frac{1}{r} + \frac{1}{j\omega \epsilon r^2} \right) \sin \theta$$

$$E(r, \theta, t) = \frac{-\omega \mu J_e}{4\pi r^2} \sin \theta \sin(\omega t - \alpha r - \sqrt{\mu \epsilon} \alpha z) \hat{a}_\theta, \quad H(r, \theta, t) = \sqrt{\frac{\epsilon}{\mu}} E_\theta \hat{a}_\phi, \quad \gamma = j\omega \sqrt{\mu \epsilon} \dots$$

**and there was light.**

East Liberty Presbyterian Church

## Science, Cosmology, Theology, and Mysticism



March marks the beginning of the Spiritual Life Committee's new focus on Science, Cosmology, Theology, and Mysticism. Our exploration comes out of the work of Teilhard de Chardin—a 20th Century Jesuit and world-renowned paleontologist.

Don't miss any of these exciting opportunities to explore faith, the world, and spirituality.

**Everyone is welcome!**

 **East Liberty  
Presbyterian Church**  
www.ELPC.church

116 South Highland Avenue  
Pittsburgh, PA 15206  
412.441.3800

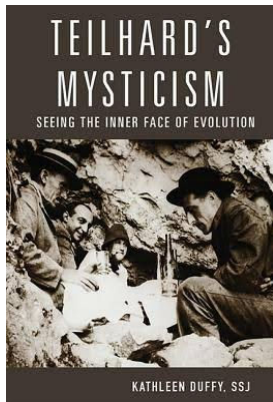


**Interfaith Panel on  
Our Role in the Universe  
Sunday, March 5  
12:15 pm — Social Hall**

The Spiritual Life Committee invites you to an Interfaith Panel that will discuss the question, "What is our role as humans in the universe?" Pastor Randy will join representatives from Judaism, Islam, Buddhism, and more in this intriguing discussion with diverse religious perspectives. A light lunch will be served. Please RSVP to Kate Carlson by calling 412.441.3800 x116.

**Teilhard's Mysticism  
Seeing the Inner Face of Evolution  
Study Series  
Thursdays  
March 23, April 6, 20  
May 4, 18 and June 1  
6:30-8:00 pm**

All are welcome to a study series as we read and discuss *Teilhard's Mysticism: Seeing the Inner Face of Evolution* (Orbis Books, 2014), and watch provocative videos featuring Brian Swimme, Illia Dellio, and others on cosmology and theology. Join the conversation!



Pierre Teilhard de Chardin (1881-1955) was a French Jesuit priest and scientist. Although his writings were not accepted by church officials of his time, he articulated a new mystical vision, in tune with the findings of science and our expanding knowledge of the universe.

**Teilhard's Mysticism:  
Spiraling into the Cosmic Christ  
Retreat at ELPC  
June 16, 17, 18**



The retreat will be led by Kathleen Duffy, SSJ, PhD who is Professor of Physics at Chestnut Hill College, where she directs the

Interdisciplinary Honors Program and the Institute for Religion and Science. She is editor of *Teilhard Studies* and serves on the Advisory Boards of the American Teilhard Association and Cosmos and Creation. Her present research deals with the way Teilhard de Chardin's religious writings connect with modern science. She has published several book chapters and articles on these topics, an edited volume of essays entitled *Rediscovering Teilhard's Fire* (St. Joseph's University Press, 2010), and *Teilhard's Mysticism: Seeing the Inner Face of Evolution* (Orbis Books, 2014).